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ABSTRACT

Noting that many middle school teachers are challenged to use portfolio assessment in the midst of their other daily responsibilities and mandated activities, this monograph demonstrates how portfolio assessment can contribute to student learning, shows how teachers use portfolio assessment in their classrooms, discusses students' views of portfolio assessment, and presents unique uses for portfolios. Following an introduction on the "what" and the "why" of portfolio use, the book's chapters are: (1) "How Portfolios Enhance Learning" (Deborah H. Sherrill); (2) "Portfolios: Moving beyond the Scrapbook" (Ann Lockledge); (3) "Reflection Collection: Portfolios that Emerge from Advisory" (Barbara A. Smythe); (4) "Portfolios in a Writing Workshop" (Arlene M. Owens); (5) "Portfolios in Social Studies" (Ann Lockledge); (6) "Portfolios in Mathematics and Science" (Kathleen Lynch); (7) "Helping Students Make Selections from Different Areas" (Rhonda Evans Benton); (8) "What Students Say about Portfolios" (Deborah H. Sherrill); (9) "Students as Employees: Integrating Portfolios across the Curriculum" (Angela Joyner); (10) "Portfolios, Assessment, and a Curriculum Fair" (Arlene M. Owens); (11) "Developing Portfolio Assessment: A Team Effort" (Ann Lockledge); (12) "A Professional Portfolio as a Model" (Judith A. Hayn). Also included is a list of web links to portfolios and authentic assessment. (Contains 33 references.) (KB)

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USING PORTFOLIOS ACROSS THE CURRICULUM

EDITORS ANN LOCKLEDGE & JUDITH HAYN

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Using Portfolios Across the Curriculum

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In Memoriam

Ann Potter Lockledge (1932-1999)

*When you give a man a fish, you feed him for a day,
When you teach him how to fish,
he can feed himself for a lifetime.*

Not often are those left behind able to pay tribute to a special friend in a tangible, permanent memorial. Ann Lockledge was our friend, and the publication of this book intended for middle school educators serves as part of that permanent legacy of service, dedication, and commitment Ann leaves through her life and her teaching.

Hundreds of schoolchildren enriched by her presence in this country and abroad are also a portion of the legacy from Ann's years as a public school classroom teacher and administrator. However, this volume also acknowledges her devotion to the teachers who became the focus of the latter part of her career as a teacher educator. Middle school theory and its application defined her twelve-year tenure at the University of North Carolina at Wilmington as Professor of Social Studies and Middle School Education. Through this text, which she conceived, developed, and co-edited, her intent was to further one goal, assisting middle level educators seeking guidance for how authentic assessment can further "best practices" teaching.

This manuscript provides just such a guide by describing ways portfolios can integrate evaluation across disciplines. This concept grew out of classroom research Ann began with her colleagues in middle school education at UNC-Wilmington. Dr. Richard Huber, Associate Professor of Science Education; Dr. Ann Crawford, Associate Professor of Mathematics Education; and Dr. Judith A. Hayn, Assistant Professor of English-Language Arts Education in the Department of Specialty Studies collaborated as a team across several semesters to assess preservice middle school teachers through portfolios created in their respective methods courses. Ann's belief in teaming, surely the linchpin of middle school theory and the

power of effective modeling for preservice teachers, provided the initiative for the experiment.

Using Judy Hayn's previous experiences with portfolio assessment and Ann's openness to alternatives, practitioners in the field then applied this evaluation tool in their classrooms in a number of schools in southeastern North Carolina. The results of this action research supply the information contained in chapters by Barbara A. Smythe, Arlene M. Owens, Kathleen Lynch, Rhonda E. Benton, and Angela Joyner.

These women continue to search for ways to reach middle school students with innovative, creative strategies that reflect Ann's personal philosophy. As her favorite quote at the beginning of this tribute indicates, Ann Lockledge believed that helping young adolescents prepare for the rest of their lives is crucial to their survival and ours.

Ann often used this maxim to jumpstart inservice and staff development activities she, Judy Hayn, and Deborah Sherrill conducted with middle school teachers and administrators. Deborah, a longtime practitioner in both public school and university arenas, not only aided in collecting the data for many of the chapters in this text, but also authored two chapters. Ann, Judy, and Deborah jointly prepared this manuscript not knowing it would be Ann's final gift to the teachers she believed to be the most crucial – the teachers in the middle who turn gawky, giddy young adolescents into productive students, and ultimately, responsible citizens. It is also her final gift to those students who reap the benefits of learning how to feed themselves, figuratively and literally, guided by teachers like those whose work appears in this book.

Ann, our colleague and friend, inspired us through the example of a lifetime devoted to education and to middle school teachers and their students who owned her heart. *Using Portfolios Across the Curriculum* serves as a reminder of the joy, love, and faith she exhibited to her contemporaries and students. We miss Ann and always will, but her final gift brings us comfort, knowing her words live on to inspire and inform. — Judith A. Hayn

Introduction: The What and the Why

My midterm grades are due by 3:30 today.

I have bus duty this afternoon. Could we schedule the parent conference a little later?

My student intern needs me to observe her lesson third period.

Sound familiar? Another day in the life of a typical middle school teacher. Often the harried pace required of middle school teachers leaves us drained and exhausted by the end of the day. With the growing demands on us as teachers, both in and out of the classroom, the idea of making major changes in instruction and assessment seems unfathomable. In our inservice workshops we are encouraged to use portfolio assessment and integrated curriculum but with the day to day responsibilities and mandates we already carry, adding other responsibilities seems impossible.

This monograph seeks to make the impossible possible. Portfolios may be used in many different ways and in various subjects. They may also be used to bridge one subject with another. While we recognize the value of fully integrated units, we also acknowledge the time and skills needed for their development. We suggest that team planning and portfolio implementation can serve a similar purpose for the middle grade student, that of adding new information to existing knowledge in meaningful ways.

After introductory pieces by Deborah Sherrill and Ann Lockledge we take you through the day in a typical middle school and demonstrate how real teachers use portfolio assessment in their classrooms. Our first visit is to Bobbie Smythe's advisory period where she describes how students develop ownership of the class-

room through using portfolios. Arlene Owens, Ann Lockledge, and Kathleen Lynch explain how portfolios are used in a writing workshop, social studies, and math and science classes.

In Section III, Rhonda Benton describes helping her students make selections and justify their choices for their portfolios. Following, Deborah Sherrill presents important information about what students say about portfolios.

In Section IV, several teams' experiences using student portfolios are presented. Angela Joyner describes her team's approach with integrating portfolios across the curriculum which involved setting up students as "employees" and each classroom as a "business." Arlene Owens explains her team's all-school curriculum fair where students displayed their portfolios reflecting best work in all four core subjects. Then, Ann Lockledge describes the roles of teams as a critical element in using portfolios.

Our fifth section includes Judy Hayn's advice for creating a teacher portfolio that allows the teacher his or her own personal integration while providing a model of the process for students. She reminds us that in order to successfully implement portfolio integration in the classroom, we must examine our own learning and reflect on our own change and growth.

Finally, the Resources section contains a bibliography of portfolio-related materials as well as current web sites and related links.

— *The Authors*

-I-

Learning Through Portfolios

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1. How Portfolios Enhance Learning

Deborah H. Sherrill

As I reflect on myself as a learner, I am often dismayed at all the facts I had drilled into my head that I can no longer recall. After four years of French, the only sentence I'm able to recall is *Je m'appelle Henri Martin* – not something I've found useful in my adult life. I was taught in classrooms where there was never any mention of other subjects. We did math in math, science in science, and never the twain did meet. Today we know that real learning occurs when our brains make connections between things we already know and things we are being taught; connecting the new with the known enables our students to process material in meaningful ways. Portfolios provide a framework for making these kinds of connections in your classroom.

Portfolios used across the curriculum encourage students to view themselves as complete learners, not compartmentalized cogs in the separate subject wheel. When they are asked to choose pieces of their best work from every core subject, students begin to see their strengths and weaknesses. For example, lack of attention to detail may be a problem that crosses every subject area. A talent for writing may surface in science as well as English. Portfolio assessment across the curriculum enables students to recognize patterns in their learning.

Another connection portfolio assessment encourages is that of commonalties of various disciplines and their relationships to each other. When asked to write a math journal, one student replied, "It's hard to do English in math class." When teachers require common

artifacts in portfolios such as journals, concept maps, writings, and projects, students begin to apply what was learned in one subject to that of another. By using portfolios consistently across the curriculum this type of comment will be less common. By using portfolios, students begin to see that reading and writing are necessary in every discipline and that measurement may be necessary in math, science, and social studies.

Perhaps the most important contribution portfolios make to student learning is that of requiring student metacognition and reflection. By requiring students to regularly answer questions such as, "What were the steps I took to produce this work?" or "What piece of work reflects my best efforts?" they develop lifelong habits of critical thinking that enable them to make connections and become problem solvers. Using portfolios that require students to consistently assess themselves before, during, and after their learning assures that students will see this evaluation as a useful tool transcending subject areas. This process also gives students the role of decision maker, validating their responsibilities as learners in all subjects. Portfolios belong to the students who complete the work, assess its strengths and weaknesses, choose its contents, explain their decisions, and then celebrate their successes.

As you read through the real life uses of portfolios presented in this book, keep this statement in mind:

It is taken for granted, apparently, that in time students will see for themselves how things fit together. Unfortunately, the reality of the situation is that they tend to learn what we teach. If we teach connectedness and integration they learn that. If we teach separation and discontinuity, that is what they learn. To suppose otherwise would be incongruous.

(Humphreys 1981, p. xi.)

We think portfolios provide connectedness and enhance learning. 

2. Portfolios: Moving Beyond the Scrapbook

Ann Lockledge

How can I know what I think till I see what I say?

—E. M. Forster

For years I have kept scrapbooks. They are not particularly well organized, but they contain bits and pieces of the lives of my family. Each page is relatively well arranged, but the order is helter-skelter although somewhat chronological in nature. I label these scrapbooks only by the span of years each covers. There was a time when I kept neatly organized photo albums. Different pages were devoted to different people over a period of time. At one point I disrupted the scrapbooks to make collage picture collections that were currently in vogue. But I always kept adding to the scrapbooks as a place to keep pictures sent by friends or relatives or as a depository for something that seemed significant about a conference. I did not really know why each piece found its way onto the pages. But when there was enough accumulation of this and that plus another batch of pictures taken quite haphazardly, I filled a few more pages.

There was no thought of justifying what went in and what might be left out. There was precious little thought of even trying to keep a given page to the same topic. There certainly has been no theme other than the flow of my life. Yet these scrapbooks are satisfying as I look back at them, and I can explain the contents if asked to do so. I can share my scrapbook with others who travel down a particular memory lane with me – either adding their own versions or accepting mine as valid family history.

This is not the story of the portfolio. The portfolio has the value of the scrapbook in that it makes permanent aspects of a given period of time. And it is a selection of artifacts from the period in question.

But the portfolio is not haphazard. It is organized and thoughtful. There are as many items excluded as make their way onto the pages. Each selection is picked with care, its inclusion justified according to a theme, and the selections are organized to tell the intended story.

Teachers kept anecdotal running records and folders of student

Why Portfolios Promote Learning

- They enable us to look at how students learn and the processes they use in various disciplines.
- They encourage metacognition and reflection that help students make connections between subjects.
- They permit the students to view their learning as a whole, not just as unrelated subjects.
- They encourage a deeper depth and breadth of learning.
- They offer students a framework for organizing their learning thereby making personal connections between subjects.
- They give students the role of decision maker which helps to validate their responsibilities as learners in all subjects.

work long before such records were recognized as a legitimate means of assessment. But when the demand for accountability became coupled with increasing criticism of standardized, multiple-choice tests, this manner of looking at accomplishments was seen as holding considerable promise; and the portfolio moved beyond a mere collection of available materials.

Writing teachers and art teachers, in particular, have used portfolios extensively.

In fact they want

students to go back to look at different pieces they had produced and perhaps think about how their work might be improved. Portfolios were used for reflection but usually not in an organized, written fashion. Past work was used to influence future work and to promote skill development.

When other disciplines began using portfolios, some of the products produced were larger than would easily fit in a folder or notebook. Suddenly selection of samples became imperative. It is not

feasible to include a poster, model, or biological specimen; one can include pictures or selections from work undertaken. Such representations of student work need more explanation than a painting or piece of writing.

Believing that students should be responsible not only for reporting but for assessing their own learning, teachers emphasized that the portfolio should be selective. Why would anyone want to show a piece that was of doubtful quality – unless they intended to include another that showed considerable progress in what was to be judged? Why would people want to look at something that had not been organized to convey a message? When these concerns were answered, the portfolio became an extension of the individual learner.

An integrated portfolio as well as a portfolio for a specific class should not contain all of the material produced or collected during the semester – it needs to be an effort at highlighting individual understanding and growth. Portfolios should be limited to a reasonable number of entries with each topic represented by a minimal number of pieces.

As students assemble portfolios of their work, they begin to think about the organization of the selections and the message to be communicated. Themes begin to emerge. Some students wish to show how they have grown. Others wish to emphasize a particular ability or interest that carried throughout their work. Still others simply want to display their best work. The most important part of the selection process is the connections students make about their work as they consider it. It is metacognition at its best.

The portfolio format combined with reflective thinking can be very useful in helping students make choices based on knowledge. As students are confronted with the challenge of selecting their best work and justifying that selection, they work and think critically about it.

Over time, each student can assemble a portfolio to represent his or her growth as a learner. Students may be invited to include such things as pieces of writing, samples from projects, pictures, descriptions, and examples of whatever they consider to be their best work.

Each piece of work should be accompanied by a reflection explaining why it has been selected. Reflections may include comments on motivation, appropriateness, or students' involvement as team players.

If such effort is going into a portfolio, then it must be shared with someone other than the teacher. Presenting the portfolio to parents is one way. Having a class celebration at the end of the grading period is another. A curriculum fair reaches beyond parents and classmates into the entire school community.

To prepare for these activities, students can work in pairs or in groups of three to assess progress and to help one another reflect and organize work. When doing this, students need some type of rubric so they have a measuring stick to judge quality. It is not difficult for students to help each other judge where their work falls on a continuum between inappropriate and inadequate to innovative and integrated, from limited descriptive value to selective and reflective. At first students feel most at ease with a simplistic, generalized rubric with no more than three or four levels such as

1. Made a collection. Attempted to explain contents.
2. Selected from collected materials. Explained why pieces were included.
3. Made a balanced selection of samples. Included a thoughtful reflection that justified inclusion of pieces.

The assessment will become authentic for them because they will see that it measures depth of understanding, and they can deal with both content and process across disciplines.

And as for my scrapbooks? My children have begun to take an interest in my collections – but they always have to ask me for explanations. I have been thinking that I should start including pages of reflections telling why I chose to preserve certain artifacts for future years, but then I wouldn't have a scrapbook anymore. 

-II-

Portfolios Across the Curriculum

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3. Reflection Collection: Portfolios that Emerge From Advisory

Barbara A. Smythe

The purpose of education is to allow each individual to come into full possession of his or her personal power. —John Dewey

B-R-R-R-I-I-I-N-N-G-G!! As the bell rings, young adolescents begin to flood the hallways. Eager faces excited about the prospect of another day filled with learning confront the teachers. Cries of "Hey, Mr. Gonzalez, what are we doing today?" and "Boy, Mrs. Schmidt, I can't wait to come to your class!" resound through the corridors.

WHOA! Reality check! This is not the typical scene in most middle schools. When the bell rings students straggle into the building, still completing the last bits of conversation with friends. Some are upset by an incident on the bus. Some come from a less than ideal family situation that morning. Many are reluctant to enter the building for fear of what awaits them – another challenge they cannot meet, an assignment left undone, or an adversary to face. Those children who do address a teacher often say "hi" shyly, wondering if the teacher is in a good mood. And yet, the most important interactions for many children are those with their peers – not teachers or the educational activities of the day. In this setting, the children wander off to class where teachers prepare to teach them a state-mandated curriculum.

In many middle schools, students have some type of advisory program. Such programs provide emotional support and attention to the social, personal and developmental needs of young adolescents (Andrews & Stern, 1993; Ayers, 1994; Galassi et al., 1998). The components of a good middle school advisory program include communication between students and adults, opportunities for

decision making, and individual and group responsibility (Bergmann and Baxter, 1983).

In an attempt to give teachers direction for their roles as advisors, many pre-packaged programs have been developed. One such program, *Ombudsman: A Classroom Community* has been used in my school since 1989. The program is basic and easy to use, designed to develop personal, interpersonal, and community relationships. The activities are described in a step-by-step format with all components listed: objective, time needed, supplies, activities, and questions to ask.

Yet, an informal survey of teachers in this school revealed that the program is not successful. According to teachers surveyed, it is either not being used or is used with reluctance and an obvious lack of enthusiasm. The advisory period in my school is the least favorite class for teachers and the most likely to get cut if extra time is needed for assemblies or other activities. These prepackaged programs are viewed by students and teachers as another class, another lesson, another preparation, and another headache.

In light of the research that shows how necessary advisory is for young adolescents, I decided to implement a student-centered, total-participation, portfolio-driven approach in my advisory class. The process has been slow, but the change in my advisory class has been dramatic. We have come together as a group, and we are more willing to share our problems, questions, and concerns openly. My children do enter my classroom asking "Who has the activity today?" "What are we doing in advisory?" and "Let me tell you what happened." They are angry when their advisory time is interrupted for other activities, and more than once I have been asked, "Do we have to go to the assembly? Can't we just turn the lights off so no one knows we're here?" They are willing to compile what they are doing, relate it to other parts of the day, and show it to others.

Our first task in advisory was to formulate the goals upon which our activities and analysis would be based. My seventh graders had had an advisory program in the sixth grade, so I assumed that this activity of goal setting would last one class period. Wrong! When I asked the students why they had advisory, most students answered,

"It's a study hall;" or "It's to calm us down from the bus ride;" or "It's to teach us to say no to drugs." Only after several minutes of leading questions – Why do we sit in a circle? Why is the class not graded? Why are we in small groups? Why does everyone in the school have an advisory class? – did some reasonable purposes surface (see Purpose in Figure 1).

With our purposes in mind, we then made our promises to ourselves and each other about our behavior in advisory. We realized that in order to accomplish our goals, we had to behave in certain ways. These behaviors were discussed, evaluated, and recorded on a poster and in our portfolios (see Promises in Figure 1). We referred to these goals and promises throughout the year. The reactions and responses of the students were the same as before —surprised at the purposes of advisory and supportive of the promises we made as a group. This year I added two new components to my advisory. I turned the entire advisory program over to the students, and we all recorded our responses as part of our portfolios.

The class of 20, plus me, divided ourselves

Figure 1

Reflection Collection

Purpose

Socialize.

Get to know each other.

Guidance, talk to one person.

No work, No pressure.

Drug information.

Promises

Cooperate with each other.

Show respect.

Take turns talking.

Don't talk behind people's backs.

Keep confidences.

Be supportive.

Questions

What was it about?

What did you like about it?

How did it turn out?

What was involved?

What were you thinking?

Why did you choose your activity?

What did you find interesting about this activity?

into groups of two or three. I volunteered to go first to model the procedure. We went to the media center each morning for two weeks to research our activities. Each group was given copies of our advisory manual (*Ombudsman*) from which to choose activities to present to the rest of the class. The manual provided a resource for activity ideas. As groups began planning, many decided to "do their own thing" instead of picking a pre-made activity. The activities included group charades, exploring our feelings, cooperation games, drug information, role playing, dealing with anger, recognizing and resisting peer pressure, and making decisions. These were issues chosen by students because they were important to them. The only activity requirement was that it meet one or more of our advisory goals. The groups picked or planned ideas they wanted to present based on the goals, not necessarily on the manual. Two of the groups got ideas from what previous groups had presented. One group presented the same activity from a different viewpoint, while another group extended a previous activity. The students had the freedom to select or create any activity, provided that it met the advisory goals.

After deciding on their activities, the groups selected a week to present without interference from other school activities. Our advisory schedule was set up such that Mondays we have "Checking In" (we talk about the weekend just past, the week coming up) and Fridays we have alternating Study Day or Club Day. The rest of the week is for advisory activities. Intramurals, fundraiser kick-offs, concert practices, or field trips can sometimes cancel our advisory period. Each group had to be assured of an uninterrupted time for its activity. Once the group had selected the activity and time, it became very protective of both. If a change in school activity necessitated a change in the week for the activity, the children became upset. Such changes forced them to make decisions about how they wanted to use their time. As much as possible, I let the students make the decisions, and more often than not, they chose to stay in advisory.

Turning advisory over to students not only improved participation, fostered creativity, and improved decision-making skills among my students, it changed my attitude toward advisory. Advisory is a chance to experience what my children can do. I no longer have a

class to plan for; I have a class to participate in. I am a learner with them.

Using portfolios in advisory evolved from this change in my role from teacher/leader to learner/participant. As the first group presented, I began taking notes. When the students finished their week, I wanted to reflect on what they as presenters and we as participants had done. When the children saw me writing, they wanted an explanation. After hearing my reflection, they asked if they could “do it too.” The “Reflection Collection” was born. There was no problem with selecting best evidence. They wanted evidence of each of these weeks where they had done something that was significant. There was no problem about writing rationales, as they always had something to say about the activity.

Following the second group’s presentation, we all began to write down what we remembered, liked, disliked, thought, and felt. When some of the students were stuck on what to write about, we devised a list of questions to get us thinking (see Questions in Figure 1). Since we were writing, we needed a place to keep our reflections. Out came the folders, markers, and colored pencils. Inside each folder, each of us kept the list of purposes, promises, and questions, any papers the presenters gave us, anything we needed for our own presentations, and our thoughts on weekly advisory. Now we had a record of what occurred and what we thought about it.

March turned out to be a presenter’s nightmare. Nearly every week was interrupted by something, resulting in only one group presentation the entire month. It was at this point that another benefit of using pre-portfolio folders in advisory became evident. When we were able to resume our presentations in April, we had a record of what had gone on in advisory before being interrupted. By reading over our entries from previous presentations, we quickly regained our advisory mind-set and proceeded with our presentations, participation, and reflection.

After our last group presented in late April, we began the process of evaluating and selecting pieces to save in our advisory portfolios. We each set the purposes for our own portfolio and carefully and critically evaluated our reflections in terms of those purposes. We

decided to choose pieces that said the most about us as learners, showed the most growth in us as people, and showed the most change in us as members of a cooperative group. When some of us were unsure about certain parts of a particular activity, we asked others in the class for help. In each case, when one of us was sketchy about an activity, someone else had reflected about it in great detail.

The Reflection Collection provided a way of remembering and sharing information. We decided to divide our portfolios into two parts. The first part (in the pockets) included all of our reflections and collections, since we felt that they were an important part of our yearly record. In the fastened section, we kept the pieces we felt were most important to us. The number differed for each student. "How can we decide what is important for everyone?" they asked. We did agree to provide the reader with an explanation of why each piece was chosen, which also served as a reference for us in the future.

Using portfolios in a student-centered advisory provided my students with all of the components necessary for a successful advisory program. It also helped them understand what portfolio assessment was all about. They realized that they could take charge of their own learning and become adept at evaluation and decision making. They begin to establish and develop more positive relationships with their peers and their teachers. They realized that the responsibility for these relationships could not fall solely on the teacher but had to be shared among every member of the group. As the advisory circle became a relaxed, exciting place to be, and the advisory activities a wonderful way to begin the day, the portfolio became a symbol of keeping records to evaluate what students truly cared about. They were now ready to work profitably with one another and to create portfolios in the academic realm.

Getting children to begin to think and make connections is both logical and *easy* in an advisory class. The main focus of our advisory class was to help students deal with their feelings. Asking questions like "How did *you* feel when this was happening?" and "Why do you think you reacted this way?" or "How can I work through this problem?" were natural results of the advisory activities designed to explore and build self-esteem in young adults. Children expected to

be asked to reflect on the activities and decisions they made in an advisory class. If the focus of such a class is on student growth as individuals and members of the class, these reflective questions will become an integral part of the participants' mind-set in that advisory situation.

An advisory class is the perfect place to introduce students to the types of questions that can lead them to meaningful personal reflection. They can focus on what the activity meant to them without fear of getting the "wrong answer," because the nature of the class is such that there are no "right" or "wrong" answers. The advisory class is a nonthreatening situation where students employ metacognitive thinking. Once they become comfortable with looking inward for responses in the advisory class, *they* will naturally begin to make inward connections in other classes. Asking a student to apply reflective questions to a core subject will be familiar to him, since he has already thought about choices in advisory. While thinking about choices in social studies may be a new experience for a student, she will be able to easily respond because she has made choices in an advisory class.

Students who are familiar with reflecting on an advisory activity, what it meant to them, what they learned, and how they responded, may be able to reflect in the same way in a science or math class. Once the foundation of metacognitive thinking is laid in advisory and the questions become a part of the learners' schema, reflective selection becomes a part of learning in all classes. Students begin to make connections between what strategies *they* use in a measurement lesson in science and similar strategies to solve fractions in math, between the reactions of a character in a story in language arts, and the reactions of soldiers in the American Revolution. 

4. Portfolios in a Writing Workshop

Arlene M. Owens

Writing gives us concrete proof of our existence.

— Donald Graves

Several years ago when I instituted a writing workshop, thanks to Nancie Atwell (1998), I also began to use portfolios. Because my students wrote all the time, I envisioned a portfolio as a receptacle to hold their volumes of writings. The manila folders became an organizational tool for students. There was no way they could keep track of their pieces without these folders remaining in the class. I also knew these folders would serve as a record to parents to explain what we accomplished, and I had a vague knowledge that the folios would assist in my assessment and evaluation of student work.

Indeed, these receptacles did produce evidence upon which student and teacher could reflect on the work produced. I could tell how many genres were produced, how many pieces were brought to “final” stage, what grammar and technique improvements (if any) emerged, and what students considered their most significant work. Almost immediately, I understood what I really had was a folder of student work that I could consider and use to justify a grade at the end of every nine weeks. True, the students and I conferenced about their pieces and considered their writing, and that was an improvement as students saw themselves as writers. It was one step, but far from the vague and undefined purpose I envisioned in using portfolios.

Over the next summer, I began to really think about the purposes of portfolios. My son, an art student, contained all his “best” art efforts in a portfolio, but he decided what would be significant as a representable sample of his work. When I suggested he include a

particular work in the portfolio and he disagreed, he would offer an explanation of why he would or would not include that piece. My daughter was keeping scrapbooks at the time of all her favorite things: pictures of favorite movie stars, newspaper articles of her accomplishments, sports articles about her high school's conference-winning football team, articles about local festivals that she enjoyed, and the like. It became apparent to me that these were **portfolios**, not merely record-keeping receptacles. Furthermore, my students really "owned" these portfolios. They sorted through what they wanted to keep and justified with good reasoning why these memoirs or works were significant to them. I thought of the ownership, responsibility, choice, and pride that my students had achieved as participants in a writing workshop in my classroom.

Year two of portfolios in my classroom was slightly different. I still did not have a clear picture of the tool I wanted portfolios to be. Students produced a collage for the front of their folders, I instructed them to attach certain procedures into their folders, and I included a rubric of how the contents would be assessed for a grade. I read about portfolios and during that second year realized that personalization and self-directed works do not a portfolio make. Ownership of and pride in students' writings was evident, but responsibility and choice in the hearts and minds of the students were lacking. Year three would bring even more change.

I conspired with my co-teachers in the seventh grade to keep portfolios of their students' work and to send these on to me as their students entered the eighth grade. Great idea! But, what was I to do with them? Often students would try to pass on pieces completed the previous year under the guise that these pieces were present productions. I caught on quickly and asked if these pieces were so significant to them, perhaps they could improve upon them now that they were one more year into the community of writers my classes emphasized. Quickly, they abandoned these and began a series of new works, not believing enough in themselves to know that no work is ever truly finished. I say this all the time in my classroom but have not modeled that this is indeed the truth. At the end of the year I allowed a week for students to peruse their two folders and pull

together the pieces they deemed significant in some way. I explained that although these might not be wonderful pieces, they were works from which they learned something about themselves. The works might be their favorites, their best, their most impressive. During the last two weeks of school, I caught on to the elusive quality I envisioned portfolios to embrace. The portfolios were folders and scrapbooks combined, and most importantly, portfolios were tools students used to recognize how they were evolving as writers. Portfolios will indeed be an important evaluation tool, but the students with much help from me and from experts in the field will be in charge of recognizing their growth as writers and learners. The responsibility and judgment will be theirs, and I will try to pull from the students criteria that will assist them in evaluating and critiquing their work. I began year four with a more defined sense of what a portfolio could look like, what it would contain, and what it would not be.

That year I began with renewed enthusiasm to initiate the portfolio as a more useful tool for my students, myself, and my students' parents. I realized that I needed to devote the opening weeks of school to writing. As much as I enjoy the reading aspect of my classroom, I was determined to devote more time with students about portfolios. We all needed a clear picture of the purpose of portfolios as reflecting the growth of my students as writers over time. A huge, second component of the process was to try to involve parents in understanding this notion. I also decided that the portfolio would contain examples of writings until the first evaluations that occurred five weeks into the quarter. The students could include writings from home, other classes, my class, or they would include doodles of ideas.

Students decorated their portfolios with collages that showed who they were, and I included several sheets of information to assist them as they maintained their portfolios. They were also asked to include

- a sheet to assist them in the editing process of their own and others' pieces,
- a sheet of professional editing symbols,
- a sheet that reminded them of why we were keeping portfolios and how their pieces were to be evaluated,

- a sheet to record their improved technical skills, and
- a sheet to record the date, genre, and title of each piece taken through the writing process.

Perhaps the most important information I gave students was a letter for their parents explaining about my classes and how I expected parents to participate in assessing their children's work by reviewing the portfolio with them once during each nine week grading period. This was a scary notion to me, because it made me realize that I would need concrete questions for parents to look for when reviewing their children's work. I was concerned also for those students whose parents could not or would not take the necessary time to review the work of their children.

Nonetheless, the wheels were set in motion. The letters were signed by parents; sure enough, one parent jotted a note that all this reading and writing and portfolio "stuff" sounded good, but she wanted her child to learn some grammar. After all, she contended, how could anyone write unless they knew the rules. Whew! I was glad I had included the sheet to record students' skills. After receiving that note, I decided that students needed to include a sheet of their "personal spelling lists" and, with their input, it was decided that they would be in charge of their own lists and spelling tests.

Once a week, students would discuss their words, conduct a test of words that are most problematic, and grade these tests. We decided that fifteen or twenty minutes was all we needed to devote to these tasks. At this point, we had laminated the folders (to assure sturdiness), stapled the procedural and guidance sheets to the folders, and "walked through" the writing process with a whole-class effort at poetry. These poems, complete with illustrations, were "published" in the hall. More importantly, several students began work on second pieces, poems, personal narratives, and genres of their choice. Entering the third week of school, students were still learning about implementing the writing process. Their personal emphasis seems to be in the area of editing, although they want to get to publication. My personal emphasis is to remind them that all ideas, mistakes, drafts, and illustrations should be maintained in their folders so we can take

an honest overview of their progress. I am also trying to compile a list of helpful questions to assist students, parents, and myself in evaluating these efforts. 

Figure 1
Organizing Your Portfolio

Divide your portfolio into sections so that you can put your hands on your work when you need to. This will save you much frustration and will keep an organized record of your progress. You may want to add another sheet so that those who view your work understand what they are reviewing. Below is one format to get you started.

- I. Writing Workshop Instructions
 - A. Student survey
 - B. Parent portfolio reviews
 - C. Characteristics of good writers
 - D. The writing process
 - E. Guides for revision, editing, and the like
- II. Works in Progress
 - A. Your ideas for pieces
 - B. Skills sheet
 - C. Drafts in progress
- III. Finished Pieces
 - A. Sheet indicating the date of finished piece, title, genre
 - B. Projects complete with descriptions and explanations
 - C. Tests, quizzes
 - D. Reflections

Figure 2
Tips for Revising

Remember that revision is a means to improve your writing. Have you said what you intended? Does the reader understand what you are saying? Who is your audience: teacher, yourself, your peers, administrators, a friend, an author? What do you want your readers to know or feel after they have read your piece? Have you made that knowledge or feeling known through your writing effort?

The following list is for your use and for use by your peer editor when **you** are in the revision process. This will precede the editing process as you first want to make sure that your writing accomplishes the goals you have set.

- **THE LEAD**
 - ✓ Be sure there is a part of your writing that “hooks” and makes the reader want to continue to read the piece.
 - ✓ Is it specific and attention-getting?
 - ✓ What technique do you use for your lead? description, dialogue, action, thinking of the character, and/or setting?
- **APPEAL TO THE READER**
 - ✓ Can your reader identify or relate to the piece?
- **FOCUS**
 - ✓ Does your piece focus on your purpose? Have you a central idea supported with many interesting details that involve the reader?
- **STORY ELEMENTS**
 - ✓ Does your story have a beginning, middle, and an end that are not rushed, and are complete?
- **CLARITY**
 - ✓ Is your vocabulary precise? Do your words say what you mean to say?
- **STYLE**
 - ✓ Do you *show* your reader rather than merely tell the reader about the setting, characters, theme, mood, plot weaving?

List any questions you have with your peer-editor and discuss any criticisms or questions the reader/editor may have about your piece. Correct any problems in your next draft.

Figure 3

Evaluation for Writing Workshop

Four times a year I am required to put grades on report cards. These grades reflect what you are required to produce as a writer in my classroom. Your portfolio is a record of your growth as a writer, a thinker, a learner; and your written pieces demonstrate that growth. Your involvement, effort, enthusiasm as well as the clarity and grace of language you use is part of this growth as well. In your portfolio you will see growth in your learning from the beginning of the year to year's end. Your growth can be viewed by yourself, your parents, and myself. We shall have many conferences per year regarding progress or lack thereof.

During the last week of each grading period, I will conduct conferences with each of you to review your effort and growth.

Criteria for Evaluation

CONTENT	30 pts.	Piece shows appropriate and significant information
CLARITY	20 pts.	Piece demonstrates organization, cohesiveness, and is understood by the reader
MECHANICS	20 pts.	Spelling, paragraphing, margins, punctuation, general editing skills are demonstrated in drafts
COMMITMENT	10 pts.	Student uses time productively, takes responsibility for OWN learning if immediate help is not available
RISK-TAKING	10 pts.	Student tries new genres, stylistic devices
STUDENT RATIONALE	10 pts.	Student explains efforts, indicates frustrations and goals

— adapted from *In the Middle* by Nancie Atwell

Figure 4

Parent Questionnaire for Portfolio Evaluation—#1

Student Name _____

Parent Signature _____

1. Has your child clearly explained the purposes of the portfolio?
2. Ask your child what the “writing process” is and ask your child to show you the process with a piece of writing in his/her portfolio. What questions of yours is your child unable to answer for you?
3. What questions do you have about the portfolios?
4. How does reviewing the portfolio help you understand your child’s school efforts?
5. What impressed you about your child’s portfolio?
6. What would you like to know more about?
7. What suggestions do you have for me?
8. What writing goals do you and your child have for the next nine weeks?

Figure 5

Parent/Student Portfolio Questionnaire - #2

Student Name _____

Parent Signature _____

Student Responses

1. List the different genres and numbers of completed pieces you have.
2. What piece are you most proud of and why? If you are not particularly proud of any, why this? (This enables you to set a goal for yourself.)
3. What changes do you see in your writing? If your writing seems stale, set a goal for yourself. Is there something you'd like to try?
4. What new effort or result have you experienced in your writing?

Parent Responses

1. What do you see as a strength in your child's writings?
2. What changes do you see from the last portfolio conference?
3. Please comment and offer suggestions to your child and or to me. Thank you!

5. Portfolios in Social Studies

Ann Lockledge

We should examine every aspect of life in the classroom and consider what decisions might be turned over to students. — Alfie Kohn

The curricular standards set forth by the National Council for the Social Studies emphasize making informed decisions by collecting and weighing available data. Stating and supporting conclusions by citing evidence is a hallmark of social studies education (Barton, 1997). Students can discover for themselves what supporting information is about if they are taught to collect data and make connections between pieces of information (Banks, 1990).

Social studies educators generally build units of study around broad generalizations that may be applied to a number of different topics. Generalizations show the relationship between two or more concepts and are particularly useful for considering the strategies needed to develop reasoned consideration of any topic. This guides the selection of information to be presented to or discovered by students. That is why social studies is more easily integrated with other areas of the curriculum than a subject driven by the presentation of sequential skills and understandings. Portfolios emerge naturally from this type of teaching because collecting evidence to support conclusions is essential both to informed decision making and to portfolio assessment.

Take a generalization that comes primarily from geography and economics, *Interaction between people and their environment influences the way in which they meet their needs*. It is possible to apply this generalization to a study of ancient Egypt or present day Russia. It is also possible to use such a generalization with integrated, thematic topics such as "Changes Around Us" or "Taking

Responsibility.” Another typical generalization from anthropology and sociology might be, *Organized group life of all types must act in accordance with established rules of social relationships and a system of social controls*. This too can be applied to any of the above topics, but the context in which the information is presented will change considerably. And the strategies used will differ depending on the approach. Applying the first generalization probably will involve students in producing maps and charts while the second is more likely to result in role plays and simulations. But in either case students will produce pieces of evidence to support conclusions. A sample generalization analysis is shown in Figure 1 and illustrates the variety of instructional strategies that might be used with it.

The goals of social studies encompass knowledge of content, consideration of the values that drive us, and the development of both cognitive and participatory skills. Therefore generalizations and the concepts that form them are usually explored through the use of a variety of strategies balanced between the goals. A student preparing a portfolio based on only one topic or theme might well be told to give evidence of reaching each of the three goals whereas a student doing a semester’s collection of pieces would also need to include pieces involving each of the major generalizations being explored, as well as examples of the major strategies.

From the beginning, the teacher must have an idea of the types of evidence that the student will be expected to include and then make sure that individual assignments and classroom experiences make these selections possible. As soon as teachers decide how students are to explore a generalization, they have to make decisions about the kinds of items that should go into the portfolio. One suggestion that many teachers have adopted is to distribute a selection sheet to assure that pieces will be chosen to represent all of the areas where proficiency should be demonstrated. Such a selection guide is shown in Figure 2.

Making a collection of pieces to include in the portfolio is easier than the final selection. The desire to include everything that is relevant is not limited to the very young, and ownership tends to exaggerate the value of all of the pieces that seem worthwhile. But

Figure 1
Teaching Based on Generalization Analysis

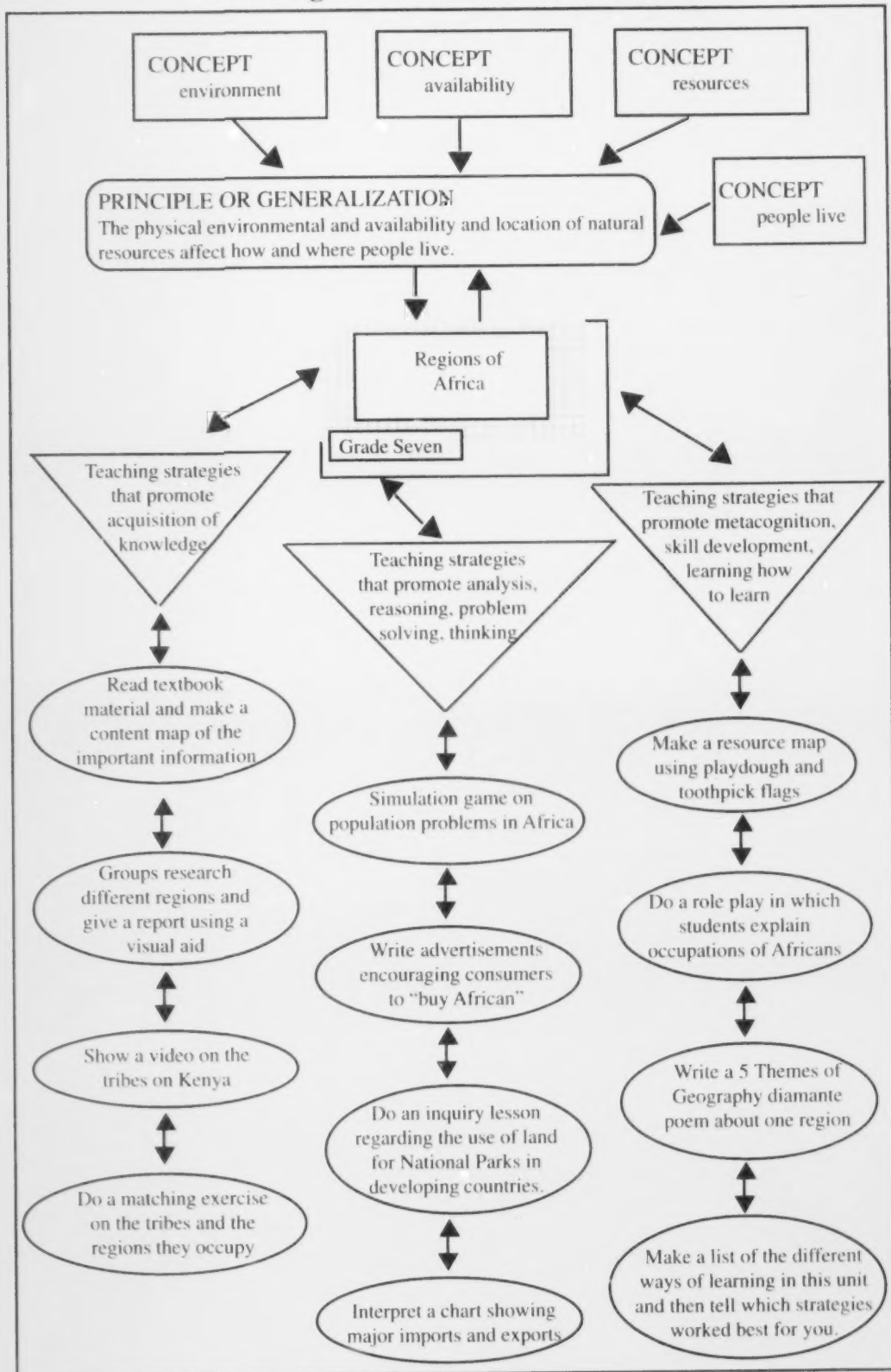


Figure 2
Pieces You Should Include in this Portfolio

1. A piece of your own writing of which you are proud.
2. A document that shows proficiency, such as a graded test.
3. An artistic or cultural artifact related to what you have been studying.
4. A graphic portrayal of chronology or historical background.
5. A map related to something you have been studying.
6. A piece that uses numbers to explain relevant events.
7. A picture of a project or a group activity presented in class.

the point of a portfolio is not to show off everything you do well, but rather to carefully demonstrate both depth and breadth of competence. It is most important to understand the need to limit quantity so as to emphasize balance and quality. Students need guidance (Figure 3) to help them make decisions about what constitutes best evidence of the competencies they have included. And selection is extremely important. For younger students, a portfolio may be a collection of materials that provide a picture of their progress in skills such as map reading or social participation, as well as a knowledge base about contrasting communities or families around the world. For older students, if the portfolio is to be a valid way to assess understanding and reflection (Murphy & Smith, 1992; Mills, 1990), then metacognition is critical as students ask themselves how a particular piece evidences learning.

At first, the portfolio selection process may seem overwhelming to students. Making collections is fun, but the sorting, organizing,

and choosing does not come as easily. For this reason, students may need the opportunity to work in pairs or groups of three from time to time to help one another with judging and organizing materials.

Figure 3

How Shall I Decide What To Include?

- Include those items that prove you are a learner in each topic studied.
- Include those items that support the conclusions you have reached.
- Include items that show how well you can do various tasks.
- Include something that shows how you have improved.
- Plan your selections so they tell a story of your growth over time.

During reflection conferences, questions such as the following might be written on the board:

Will this portfolio tell a story?

Will it have a relevant social studies theme?

Do the selections show how well the preparer understands different topics?

Does it demonstrate the student's strengths?

Justifying the evidence selected is even more daunting. For the grade conscious middle level student it is challenging to quantify and justify, because too many school tasks have involved relying on the judgment of others as to the quality of work produced. The concept of depending on your own evaluative skills can be staggering. But when do young adolescents learn this type of self-reliance and build a reservoir of belief in themselves if not in the social studies classroom?

For this reason writing a justification must be handled with care. When students begin the process of writing their rationales for including a piece, they must go far beyond data collection to include personal reflection. It is here they must defend their conclusions and state generalizations they can support. They are creating a true portfolio (Paulson et al., 1991). As students are confronted with the challenge of selecting the best of what they have done and developing a rationale for that selection, they will work with something of substance (Korthagen, 1992). The manner in which they reflect on the pieces they select opens a window into the very heart of themselves as learners (Lockledge, 1997).

Forced writing during class time is an essential ingredient of moving the portfolio into the informed decision-making stage. Students need to take one of their own selections and write about why they might include it. They should explain how it is evidence of a way to learn, a goal that has been reached, or a generalization explored. Then as the pens and pencils move across the page, the teacher can insert prompts such as: Why did you pick this piece? How does it show you can reach conclusions based on evidence? What does it say about you and what you have learned? Why is it the best evidence you have of something you want to say? After five minutes of writing, students can then quickly share and edit in groups.

For too long educators have given way to the popular fiction that skill areas are more important than material learned in history and the disciplines of political science, economics, geography, sociology, and anthropology. Perhaps for that reason we have not stopped to consider that the various language arts are but tools for the critical thinking, problem solving, and values examination that are the province of our work in social studies. Even those educators who believe in inculcating democratic practices and/or an understanding of the social science disciplines, believe in producing students who are able to think critically and support conclusions with evidence. Certainly most of our classrooms fall short of the ideal, but almost all good social studies educators engage students in debating social issues, analyzing graphs and charts, interpreting geographical

patterns, role playing historical events, engaging in problem solving, or constructing a variety of illustrative models, as well as participating in lecture/recitation sessions. Problems arise with the relative weight such efforts are given in evaluating these students. Perceived *real* assessment comes with tests based on multiple choice, plus an occasional essay. Students know that what they enjoy most is not necessarily going to rank very high on the assessment scale.

By using portfolios that can change. In the portfolio, it is possible to empower learners by encouraging them to make judgments and decisions about this world of ours and defend conclusions they reach. These learners will then be motivated toward goals that allow them to construct their own meaning and enable them to feel successful when sharing the results of their learning experiences. 

6. Portfolios in Mathematics and Science

Kathleen Lynch

It is impossible to dissociate language from science or science from language. To call forth a concept a word is needed; to portray a phenomenon a concept is needed. All three mirror one and the same reality. — Antoine Lavoisier

Portfolios in science seem like a natural continuation of the emphasis of process over product. They have to be reflective because reasoning is a fundamental part of the scientific method. Entries are easily accepted by students as a way to present analyses of observations. Students can set up a testing situation, observe the results, record what is seen, and then draw conclusions that come with a built-in rationale. The young scientists have done some critical problem solving and can tell you about the results. It is often easy to take pictures of the process, and half the story is told without putting a single word to paper. Add a few graphs and a paragraph or two about conclusions, and it is evident that a valuable learning experience has taken place. The process is evident and the product clear.

Not so in mathematics because so much of what is done is symbolic. The first vehicle of expression is numeric, not verbal; consequently students seem to think that all mathematical concepts learned ought to be expressed in numbers. Words are for language arts and numerals are for math. So, portfolios that involve mathematics have to start way back with learning to write about the problems to be solved and the processes involved.

Why is this harder in math than in science? Perhaps it is because science involves observation, and we have to use words to tell what we have seen. Diagrams may help but in the final instance language is an essential element of the explanation of what happened. In mathematics we are so used to the symbolic notions represented by

numerals that words seem irrelevant. The process may only be partially understood and the concept unclear, but the numbers are so neat and orderly that they seem not to need assistance. At least that seems to be what lurks in the minds of seventh graders. From time immemorial it seemed sufficient for many students to memorize “invert the divisor and multiply” without having the foggiest notion of the relationship between multiplication and division in the world of fractions. Lack of understanding can easily be hidden unless someone asks you to write an explanation of what you did and what you know to be true. Using reflection to uncover such a deficiency is painful even though it leads to greater possibilities.

Since the implementation of the National Council of Teachers of Mathematics (NCTM) Standards there have been changes in the goals of middle grades mathematics education. Traditional ways of evaluating students are no longer the only ways to evaluate student learning. If one acknowledges writing as a way of knowing, portfolio assessment seems to be more in line with current NCTM standards and with middle school philosophy. By actively participating in developing of portfolios in math class, my students have learned to value mathematics. The portfolio has enabled them to express greater confidence in their mathematical abilities and problem-solving skills and encouraged them to reason mathematically. This type of reflective thought did not occur overnight. It required hard work on their part and a lot of patience on mine, but the skills and mind-set achieved by my students will last them a lifetime.

The first step in creating portfolios is to teach children that writing in mathematics is as normal as writing in language arts. At first, students will try anything to avoid writing. The classroom will be filled with much moaning and groaning, but this can be attributed to fear of the unknown and lack of a strong mathematical vocabulary. Students do not know what is expected when having to write in mathematics because they do not see how mathematics and writing are connected. These problems can be remedied. When implementing writing in math, the teacher must be specific about expectations, model appropriate responses, help with the creation of mathematical dictionaries, and prepare posters of math vocabulary.

At first students may need to copy from the book or write down an explanation in the exact words of the teacher. This is perfectly acceptable, because it will get them in the habit of writing in math. As students progress they may be given a beginning sentence and then fill in the remainder of the written answer. It is important to build up slowly until the majority of students feel comfortable. Students will progress at their own rates and have their own struggles.

I remember one child in particular where writing really helped. She was very verbal, so language arts was her favorite subject. She did well in that class but always seemed to struggle in math. I recall the puzzlement in her voice when she said to me, "You can write in *math class*?" As the year progressed she went from a shy, disinterested, and rather weak math student to a learner who was eager to understand math concepts, scoring at the top of her class. She had discovered that the words which came naturally would help with the numbers.

I also taught a student who was learning disabled in written expression. He hated to write. Math was his best subject, and he always did well until we started writing. For example, one day the topic was to justify why a particular answer to a fraction multiplication problem was correct. I could tell that he was struggling. But when I walked over to his desk, he told me why the answer was correct. He was having problems transferring his thoughts to paper. He stopped trying, and his grades began to drop. To counteract this problem he started working from time to time with a partner who wrote down what he said. Then he started to use a tape recorder to record the words and transcribe it himself. Eventually he did not have to use the tape recorder anymore. He still struggled with the writing, but his math grades improved, and the difference in his writing ability from the beginning of the year to the end was enormous. He was writing about something he liked, and he had confidence in his own ability.

Writing in math impacts each student in a positive way, and as students become more confident in their writing abilities, their work will be more thoughtful and detailed. When the role of writing in the math class is better understood by students, writing will help them to

create richer mathematical connections in their schema. If a student does not fully understand something, writing about it will be a constant struggle. In essence, if you can explain a math concept through writing, you must know how to execute that concept.

With the writing component strongly in place, portfolios become much easier to implement. Students' reflective thoughts will flow freely because they will not be hindered by the fear of having to write about mathematics every time they include a piece in their portfolios. It will seem as natural as in science.

If you decide to use portfolios, you must know your purpose and decide how you will assess students' work. In my class, portfolios are used to show growth over time and final achievement. Each portfolio contains some items that are teacher-selected and others that are student-selected. All items chosen do not have to be and are not always exemplary papers; the student's reflection is the key. Each student-selected item included contains up to a page of reflection justifying the inclusion of that piece and explaining the significance of the piece as a learning experience. In this way I see evidence of each strand of the mathematics curriculum while valuing what the student perceived as important.

Through active participation in the portfolio process in both math and science, students see connections between the two subjects and recognize the importance of both math and writing as skills needed in the scientific process. My students became more responsible for their own learning, better critical thinkers, and self-reflective, with a better understanding of all content areas. In essence, I wanted self-directed learners who were intrinsically motivated. As the year progresses I see my students moving in this direction.

A benefit of the portfolio process is that the portfolios themselves are far more explanatory than a single grade on a report card. A student's progress can be viewed where learning is seen as a process not just a number on a report card which may have little significance in showing growth in mathematics. For example does a failing grade in mathematics mean that a student did not understand a single concept that grading period? Hardly! A portfolio shows the

teacher and the parent the whole picture, where the child struggled, and where the child excelled.

As a teacher of both math and science, portfolios give me an easy way to integrate subjects. Mathematics students can choose to include a piece of work from science. This is always acceptable as long as the student explains the significance that item has for his or her growth in mathematics or how it is linked to mathematics. It is absurd to think that math is disconnected from other subject areas, but too many times children view math this way. Through the selection process and class activities students develop an understanding that mathematics is not a course you take in isolation, but can be found woven into other disciplines as well as everyday life. When students are shown the connections and begin to make connections for themselves, math concepts will become more easily learned because the significance of the idea being taught is justified for that student; therefore it is meaningful. Portfolio assessment is a perfect way for students to see these connections.

Portfolios help to create an environment in my classroom where students are excited about learning math. Students feel more a part of their learning process because they are given choices, and this change in attitude has made a world of difference. Each day I see students who are achievers well on their way to becoming lifelong learners.

-III-

Students and Portfolios



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7. Helping Students Make Selections

Rhonda Evans Benton

I am not a teacher; only a fellow traveler of whom you asked the way. I pointed ahead—ahead of myself as well as you.

—George Bernard Shaw

Incorporating portfolios into the writing workshop environment of my seventh grade classroom was another step for me in the growth process of being a whole language practitioner. I saw this collection of student works as the means to document the growth of students I worked with each year. I also believed that portfolios would be another wonderful and challenging way for students to employ self-evaluation and assessment skills.

I began the portfolio process with students by providing folders and then asked them to select works they wanted to “display” in the collection. I also had students explain to me in a letter why they chose the selections they placed in the portfolio. This process continued throughout the school year as students reevaluated their portfolios at the end of each nine-week grading period. They were allowed to add pieces as well as change selections that had been made earlier in the year. They also continued the practice of writing a letter of explanation about their decisions at the end of each grading period.

Although I believe we all must start at some small point with new challenges and expand upon them as we learn, I did not feel these portfolios gave me the types of performance analysis and demonstrations of personal growth I knew my students were capable of exhibiting. With this certainty at the heart of my search, I began to explore possible means to more successfully use portfolios in the classroom. My search for a better mousetrap led me to Donald Graves’ *A Fresh Look at Writing* (1994) where I found the help I

needed. Fortified with Graves' chapter, "Experiment with Portfolios," and armed with new ideas, I began to evaluate and restructure the ways I would use portfolios during the next school year.

The process of incorporating portfolios into my classroom was similar to the previous year with one significant difference. I began to give the students questions they could use as a base for the choices and selections that would become part of their portfolios. Using many of Graves' ideas, I provided students with thoughts, or as some students referred to them, "questions to consider," that they were to apply when making portfolio decisions. Such questions included

- Which piece(s) do you consider to be your BEST work?
For what reason(s)?
- Which piece(s) make you most proud?
Explain your choice(s).
- Select the piece from which you have learned the most.
What did you learn, and how has that helped you as a writer/reader/learner?
- Select the piece that was the most difficult.
Explain your reason(s) for this selection.
- Are there any other selections that should be included?
Provide a rationale for each selection you have made.

These questions also brought about a revision in the ways students communicated with me about their choices and decisions. No longer did I receive personal letters of selection. Instead my students began to write a justification for each piece they placed in their portfolios.

The first time I employed this method of portfolio selection using the questions listed above, the process was slow and laborious. But in the end, it was very successful! The students found this freedom of choice to be something new and different – and almost frightening. It required a new way of thinking and learning for most of them which, fortunately, I had anticipated beforehand. I brought to class with me pieces of writings that I had written and saved throughout my school years. I shared several of the writings and explained why I had chosen certain pieces and how they met the criteria

suggested by the questions that had been given. For example, I shared a poem that I had written about my mother and explained that this piece was the selection I had chosen for *most proud*. I explained my decision based on the reason that I had worked really hard to write the poem and have it finished in time for a Mother's Day gift. I also shared with them the fact that my mother had cross-stitched and framed the poem and it now hung on her living room wall.

As I was sharing my own ideas, the students began to ask questions regarding ideas they had about their own selection decisions. With such questions as... "Is this piece okay?" or "May I use both of these?" the students began working diligently on their own portfolios as I circulated about the room observing their individual work and also viewed the "magic" that had taken over this assignment. I felt as if I had finally reached a point where this type of performance assessment was successful.

I continued this same method of portfolio selection every nine weeks of the year. At the end of the school year students prepared their portfolios as a presentation message for the next school year. The students finished their choices and wrote a rationale for each. Once they had completed this process, I asked them to write a letter to "Dear Eighth Grade Teacher," explaining their portfolio and the selections they included. I stressed the idea that this portfolio would be the first impression they would make on their new teacher(s) next year. Once the letters were completed, they were attached to the outside cover of the portfolio and packaged for the eighth grade teachers to view as they prepared for the upcoming year.

These student-written responses were wonderful. Some of the seventh graders talked about their strengths and weaknesses as readers, writers, and learners. They shared personal, real life, learning experiences. They even revealed sides of themselves that are not normally seen by those who work with young adolescents.

These first moments of achievement occurred several years ago, and each year I continue to reevaluate and restructure the ways I incorporate portfolios into my communication skills classroom. I have realized that regardless of time constraints, growing demands of

an expanding curriculum, and all the obstacles that are put in the path of a caring teacher, portfolios are definitely a worthwhile component of any classroom. I must be quite honest and say that this will not be easy in the beginning, but with time and perseverance, you and your students will definitely reap the rewards of diligent labor. So let me encourage you to research, review, and explore this possibility and give your students control of their own work through portfolios and "questions to consider." 

8. What Students Say About Portfolios

Deborah H. Sherrill

This piece was different from other writings because it changed me as a writer. I know now that I can think creatively.

—Middle school student

As those of us who have taught middle school know, asking middle school students' opinions can be a risky venture, but when it comes to a personal portfolio most students agree that the experience is a positive one. When asked, an overwhelming number of students agreed that portfolio assessment helped them become better organized, gave them responsibility and choice in their work, and developed their self-esteem as their progress over the course of a year was illustrated in their own portfolios.

Student rationale demonstrates the ownership and thoughtfulness that comprises portfolio development. In addition to selecting exactly which pieces of work they will include in the portfolio, students are usually asked to explain each choice in a brief rationale. This is often difficult but meaningful. It is the student's self-assessment of his or her own work that becomes a process for decision making, one that affords an opportunity for demonstrating relevance and ownership of work not usually offered to the middle school student. Here students are given an opportunity to reflect and share what they have learned from the process of developing their portfolios. Through this rationale we are afforded a window into their cognition, a valuable tool for further instruction.

In classrooms where portfolios are used successfully, it is essential for the teacher to model both the criteria for choosing meaningful pieces and the language that explains those choices. Students can then compile a portfolio that represents their growth as learners and showcases their best work. This was very evident as I

examined a set of portfolios developed by students in adjoining middle schools.

Students' most frequent rationale for including a piece in their portfolio was the hard work and effort that had gone into developing it. One language arts student wrote

I chose the piece 'Papa' because I put more time in it than any other. I had to do three drafts to get a final product and each draft was five pages each at least...I have never put that much time and effort into one piece...When I started writing the piece I had a grade in mind, but when I got into it, it was a lot more than a grade." Here it is obvious that the student realized the intrinsic value of her work and felt personally rewarded for rewriting until completing a meaningful writing. Knowing that they had tried their best, worked long hours, and expressed themselves in print was a great source of pride for students.

Although some students noted improvement of specific writing skills like good elaboration, better punctuation, and better sentence structure, the majority of the reasons were much more personal. As one student expressed it, "This piece is more valuable to me than anything else I've done. It's about my grandfather, and it's the best I've got. With this story I've learned how to express my feelings and dig deep inside to write."

In science, math, and social studies students also chose products that represented hard work and effort. As one science student explained, "I chose the book I made in science class titled *The Earth's Biomes* because of all the hard work I invested in it and the wide range of skills and abilities I had to use to create my book...I'm eternally proud of my project. I honestly believed it was definitely worth spending a weekend on."

Another reason that students gave for including a selection was the growth that piece represented to them over the year. This sense of accomplishment was expressed well by one language arts student who wrote, "This piece was different from other writings because it

changed me as a writer. I know now that I can think creatively.” “This work indicates a good change as a learner and thinker,” wrote a math student in his explanation for including his work on drawing and naming angles. This confidence and growth in self-esteem was expressed repeatedly by students. “I learned about myself with this piece. I learned about time, patience, and expectations,” said one student about his short story. A math student wrote, “At the beginning of the year, I wrote a diary entry to my math teacher stating, ‘I have the hardest time doing fractions.’ Now I can say that I’m very close to being a fraction expert. I can reduce fractions, *snap*, just like that. Now I love math. It’s my favorite subject.”

Another said about a piece of art work he had chosen, “This changed me as a learner. Now I know that when I put my head to something that I can do a lot of things.”

One social studies student explained how she built on her prior knowledge of Utah to make a booklet on the state creating new connections as she wrote and researched, “I enjoyed doing this project because I was able to look through old pictures of when I went to Utah in the past. I learned a lot of new things about Utah that I will be able to use when I go back there this summer.”

When reflecting on growth in his reading responses, one language arts student commented on his personal insight into his growth and demonstrated his improved writing skills in this rationale:

At first they (reading responses) seemed kind of, well, ‘doltish,’ I guess you could say. They were inconclusive and very simplistic. I was more retelling the story than telling what I gathered from it. I didn’t know how to respond. I don’t know what the problem was, but they are better now. As I practiced more, the quality as well as the quantity improved. I began to write what I felt as I read. For instance, if I didn’t like the character, I actually gave my reasons for this. I would also tell what I was interpreting from the text and how it made me feel. The more I wrote, the better I got. I actually noticed that there were insignificant changes in my

earlier responses. I guess these changes weren't that insignificant because they made my work better.

Suffice to say that without the benefits of the portfolio this student's awareness and pride in his growth as a reader and writer would not have been noticed in the "write it, get a grade, throw it in the garbage" world of many middle school students.

In conclusion, the pride that was reflected in portfolios was best summed up by one student.

After examining my portfolio, I had three pieces I felt really stood out. All three were examples of my finest work, a true effort of a man armed only with a pen and paper, battling critics with the power to make or break my future as a writer, efforts that left my brow wet with the sweat of extreme concentration.....I chose my short story because it was well versed and created the aura I wished for it to create, a feeling of sadness...I hope that it inspires others to give freely of themselves to others who need the love and charity that only you and I can give.

What teacher could ask for more? ☺

-IV-

Unique Uses for Portfolios

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9. Students As Employees: Integrating Portfolios Across the Curriculum

Angela Joyner

No one is without knowledge except the one who asks no questions.

— West African proverb

Learning is a process. We all know that. But why, if we are all aware of this concept, do educators continue to evaluate learning as a product? This question keeps lingering in my mind. It is because of this persistent question that my team decided to look at how we evaluate and assess our students. As we sat through many brainstorming sessions, one type of assessment kept flooding our thoughts. Portfolios! Why not let students evaluate themselves? Why not let students take an active role in their own learning processes? With these questions in mind, my sixth grade team integrated portfolios across all of our curriculum areas.

Our first step was to define what we meant by portfolio assessment. For our definition, we adopted the ideas of Marjorie Frank (1994). Portfolio assessment is a process of evaluating student work, achievement, progress, and attitudes based on a collection of work done by the student. Working from this definition, as well as our own thoughts about portfolios, we decided to treat students as employees. Our school would be the employer, and teachers would be the supervisors. While this concept is not new to educators around the world, the way we implemented this program was somewhat unique.

After adopting this philosophy, our next step was to decide how our business would run. Each employee needed a place to store his materials. Therefore, we decided to have our employees make their own portfolios. This was done the first week of school in the communication skills class. Each student was given a piece of poster board. The poster board was then folded up to form three pockets. Next, it was time to make the portfolios attractive. The employees were told

that their portfolios should be a mirror of themselves. It should represent that employee, just as a resumé represents a professional engineer or an artist's portfolio represents the best of that artist. The next two days were spent decorating the portfolios with clippings from magazines, illustrations, and words, giving each employee ownership of the collection. The portfolios looked professional, and employees began to take pride in their portfolios; they were well on their way to presenting their credentials to their employers.

As a team, we decided to house the portfolios in my room. I took four big boxes and color coded them for each class. Each class's portfolios fit nicely into a box, and when stored on appropriate shelves the boxes became file cabinets. Now that each employee had a portfolio, as supervisors/teachers we had to ask ourselves three questions: (1) What should the employees put into their portfolios? (2) When should we allow our employees to add materials to their portfolios? (3) How should we manage our portfolio system? Again, we sat down to brainstorm. Since we were working with portfolios across the curriculum, we had to devise a very organized and structured system. We decided to consult a variety of resources to find answers to our questions. The main message that we found about portfolios was that there is no one right way to use portfolios. Portfolio use depends entirely upon the purposes for their use, the needs of the students, and the needs of the classroom (Frank, 1994).

Working as a team, we decided that employees, as well as supervisors, should have input about contents of the portfolios. For each class, communication skills, math, social studies, and science, each employee would be allowed to add two assignments per nine weeks. If an individual supervisor wanted to require some specific type of assignment for the portfolios, that assignment would be extra. Each supervisor arranged two days per nine weeks when the employees were to clean out their school binders. This occurs when employees take everything out of their binders. All of the pulled assignments are placed in individual file folders in the supervisors' room. We decided that when the employees cleaned their binders, they would select one assignment for that subject for their portfolio. After they chose a particular piece, they were to write at least one paragraph

about why they decided to select that particular assignment for their portfolio. There are many reasons why employees might choose to include an assignment. The assignment may have been something they worked extremely hard on, or it may be an assignment they did very well, or it may even be an assignment that wasn't particularly well done but one in which students know how to do a better job. Whatever the expressed reason, letting the employee choose the assignment brings ownership, pride, and a sense of achievement. It also charts the learning process. We are able to see the sense of achievement in employees' faces as they dwell on assignments to place in their portfolios, write ever so neatly an explanation as to why that particular assignment was chosen, and then carefully place it in the portfolio.

As a supervisor in communication skills, I felt it important that each employee have an autobiographical sketch in the portfolio. Therefore, one of my required assignments was for the employee to write a one page letter of introduction to me. This was done at the beginning of the year and at the end of the year. Another required assignment was to record an individual selection read aloud at the end of each nine weeks. This charts oral reading achievement. Each person's cassette tape is placed in his or her portfolio.

Another example of a required assignment was the science fair project in the sixth grade. This time-consuming nine-week project was finished when the science supervisor took a picture of each employee's project to place in portfolios.

Managing our portfolio system was a little more difficult. It took two months of trial and error before we finally found a system that worked. Since the portfolios were housed in my room, we decided they should stay in my room and not be moved around to different supervisors. Also, it was difficult to correlate among supervisors the day when the employees would clean their school binders. Therefore, we had to agree to be flexible. Each day when supervisors had their employees clean their school binders and choose a portfolio item, all of the portfolio items were put in a folder and immediately sent to my room. The folder was placed beside the color coded file cabinet that represented that class of employees. When "Portfolio Day"

arrived (the day to clean school binders and choose a portfolio item), I would pass out the contents of the folders and the employees would file all of their portfolio items in the pockets of their portfolios. This would take an entire class period because the employees would also use this day to organize their portfolios and to complete a table of contents. The table of contents serves as an organizer and index for the portfolio. It is written by the student on a sheet of paper, and it lists, in chronological order, the titles of the assignments in each pocket.

Portfolios were put on display in the supervisors' classrooms whenever there was an activity that would bring parents to the school. All employees were responsible for explaining to their parents what was in their portfolios and why they kept one. At the end of the year, a "Portfolio Review Day" was held when parents were invited to the school for the sole purpose of viewing their child's portfolio. Once each parent had reviewed the child's portfolio, all of the portfolios were passed on to the seventh grade team. The seventh grade team was asked to view all of the portfolios and then return the portfolios to the employees in the fall.

As far as assessing the portfolios, we let the employees themselves be the evaluators. All employees were asked to give themselves a letter grade for their portfolios and then write one paragraph of rationale for their grade. As you can imagine, employees were stricter on themselves than the supervisors would have been. However, the following statements were written by one of my employees: "I think I changed a lot over my sixth grade year. I learned a lot about myself and how I learn. I am very proud of my portfolio, it represents what I achieved in sixth grade and how I grew."

Our portfolio assessment system was successful for our first year, and we are now in our second year using this system. Portfolio assessment offers students opportunities to judge their own work. We agree with Costa (1989) who said that we must constantly remind ourselves that the ultimate purpose of evaluation is to enable students to evaluate themselves. If we do not foster students' ability to direct and redirect themselves, what is education for? 

10. Portfolios, Assessment, and a Curriculum Fair

Arlene M. Owens

*When students are collaborators in assessment,
they develop the habit of self reflection.*

— Linda Rief

The importance of portfolios across the curriculum must be grounded with a firm yet evolving philosophy of how kids learn. My personal philosophy is that nothing provides a more complete picture of learning than does writing. Writing clarifies thought, enables thought to change, reaffirms behavior as well as thinking, and should occur in all facets of an individual's growth as a learner. Students should be talking about what they are learning. If they can talk about their learning experiences, if they write about these experiences, they will attach these experiences to their memories to be savored at will. This indicates that thinking is not an isolated pastime. Thinking permeates our every action. As an educator, I recognize the significance of writing as a record of student development as a thinker. Portfolios are a valuable tool for the student for several reasons and can be designed to accommodate all areas of the curriculum. "Portfolios have the potential to reveal a lot about their creators. They can become a window into students' heads" (Paulson & Meyer, 1991).

If we ask students to keep a portfolio, many benefits are available. First we send the message that what they do is important; their work has value. Students can see volumes of effort and can witness their progress. Individual collections of work encourage individual reflection and pit students against only themselves rather than compare their journey with others (Hewitt 1995). Thus students take charge of their own learning, and the portfolio becomes a rich source of "authentic information" (Frazier & Paulson, 1992, Paulsen & Meyer 1991).

Portfolios need not be random, unstructured collections of students' work. The portfolio will mirror the student's efforts, and as it is organized and reviewed, the thinking of the student reveals what has been important in his or her growth as a learner. More importantly, this type of assessment offers educators insight in enhancing the guardianship of this growth. The process becomes more valuable to teachers than the assessment product.

The purpose of this study was threefold. A personal goal of mine was to extend my observations of usefulness of portfolios within my classroom as a tool for students to self-evaluate their growth as writers, readers, and learners. A question existed about coordinating the efforts of teachers of other disciplines on my team to make portfolios that allowed students to demonstrate their work in science, social studies, and math. To give students a sense of purpose for the evaluation effort, a physical product, by means of a true curriculum fair, will provide students and teachers the culminating event needed to celebrate student and teacher achievement.

Because this project was presented mid-year, it was fraught with difficulties. First of all, I had to introduce the idea to members of my team, briefly introduce my purpose, understand if they would cooperate, give brief instructions to them to SAVE all projects, tests, and reports, and promise them that I would research questions that would assist them in helping students become evaluators of their learning. I went further and said that if necessary, I would physically assist them in their classes during the week designated for portfolio evaluation. Team members were familiar with my efforts at portfolio exploration through my reading and writing workshops. They had also embarked on ill-defined methods of keeping track of students' progress via portfolios in their disciplines. The philosophy was in place. The barriers were time constraints and the physical storage of students' work.

We decided that the most critical need was to save everything. We decided to save items in bins, cupboards, folders, notebooks, and on film or video. One discouraging fact was that many projects, graphs, tests, and notebooks had already been taken home by the students and had reached, no doubt, an ignominious demise. The

teachers, being curious and dedicated, decided that this would not stop the idea and we proceeded, knowing the information we gleaned from this half-year's effort would enhance our situation for the upcoming year and allow us to delete and/or add to our programs. We would begin an assessment and definition of the use of portfolios across the curriculum as a tool for students to evaluate their growth as learners. Immediately we perceived that this type of evaluation would not only be "more accurate, but more comprehensive" (Hansen, 1992) than traditional means of evaluating students and ourselves.

The area most difficult for me is math, and this is where I directed my initial energies. Our math teacher was a tremendous help because of her visionary approach. We decided that there was more to math than the "Problem of the Week" (Knight 1992). Following Knight's suggestions, we initiated the following procedure for students to evaluate their portfolios and incorporated our questions:

- Collect five math items representing students' knowledge and effort.
- Include a written entry for each selected item. This was to be a personal statement by the student declaring why each piece was significant.
- Type each response in ink.
- Have each student prepare a table of contents modeled on those in texts.
- Have each student prepare a computer-generated cover sheet.

The general questioning Shirley devised would be as follows:

"Select a sample that shows something you did that

1. you found to be especially difficult;
2. you enjoyed doing or learning;
3. gave you a chance to use technology;
4. shows you can apply math to an out-of-school-situation;
5. required knowledge about geometry;
6. shows your ability in problem solving."

These questions provided students with a content guide and a focus for their initial perusal of math products (Kuks, 1994, p. 333).

Once each student completed the questions, allowing approximately one week's time, a peer edit and reading would follow. Peer reading provides areas of awareness in that another student can often spot where a colleague is derailed, and secondly, readers may reaffirm their own strengths and/or weaknesses (Wolf, 1991). With such a procedure in place, students saw that problem solving does not occur only in math and that revision is not necessary only in English. Mechanical, technical, and evaluative skills are thus carried across the curriculum. The math teacher concerned herself only in the questioning assists to the students and concentrated on the *content* of student choices and their value. She was not to edit grammar or sentence construction. That would be the task of each student (Hewett, 1995). From this procedure, assessment goals for next year's portfolio evaluation would be developed.

The science teacher on our team employs various strategies in the classroom. By design, science provides manipulatives, experiments, and field trips that engage students in the scientific method. She required a notebook similar to a response journal in an English classroom. These journals allowed written reflection as a means of anchoring questions, conclusions, and proofs to the students' growth in science. To see whether a student understands the principles behind an operation is the purpose of experiments, lectures, tests, and journals (Hewitt, 1995). It became apparent that teachers on our team had the same purpose in setting goals and questions across the curriculum. The questions we wanted students to consider as they evaluated their works varied only slightly. The science teacher determined to set criteria to address her broad needs and to combine these with questions students deemed important. Thus, external (teacher's) and internal (students') criteria were joined, and students became a part of the evaluative process (Rief, 1992).

At this point, it was apparent that the questions we prepared were similar, and in some instances, precisely the same. In creating the questions for this implementation of portfolio assessment, both teacher and student were reminded of what was studied, of the purpose of the assignment, of classroom activities, of the benefits, as well as what was improved or eliminated. The focus of the classroom

work then targeted efforts rather than grades (Kuh, 1994). The science questions were the same as those devised for math, substituting the term "science" for math, and eliminating the specific math question concerning geometry.

Social studies can be so easily aligned with methods used in writing in the English curriculum that at first our team's social studies' teacher and I thought to prepare our questions together and perform our assessment days similarly. Another idea presented itself because the social studies teacher had already let so much writing and so many projects leave the classroom before our project began. It was decided that she would list major projects, test, and papers that governed the learning of main historical themes as a reminder to the students of work completed. By means of questioning, the focus of the students would be narrowed, and a student rationale would explain, defend, and justify their choices of areas of importance. Interestingly enough, many projects reappeared, and there proved to be more current projects that enhanced their choices. It turned out to be a non-problem, and questions did indeed align with those I used in the English classroom.

As our team compiled and planned our week of portfolio assessment, an interesting gift presented itself. A seventh grade teacher, with facility and success with product descriptors in her own communication skills classroom listened to our team's planning and offered to produce a general product descriptor that would be helpful for students who would prepare, write, and present the rationale for their final choice for the Curriculum Fair. Thus, each teacher had a uniform descriptor to unify the goals and procedures for presentations at the fair.

Kuh (1994) thought that a "teacher implementation of portfolio assessment for one area of the curriculum in one classroom does not have to follow the plans that require consistency from classroom to classroom," a theory that was coming to fruition as we defined our plans. Each teacher had her own style, needs, and method of presenting the questions. Those needs must be safeguarded and respected and can be if the goals of the assessment and the philosophy on which they are based is the same.

In communication skills, I systematically guided my students into prioritizing their writings, and now they would have the opportunity to include responses from their reading journals, major book-making project, their various products in the study of the Holocaust, as well as their writing portfolio collection. As a prelude to the May portfolio evaluation, students spent two days after completing their writing, illustrating an original story describing what they learned about books, creating a story, illustrating, editing, helpfulness, and cooperation. I modeled for them how I felt about the project, what I felt went well, and how I would change next year's project.

During their brainstorming, I led them with simple, direct, and specific questions to enhance their memories and enthusiasm about the project. The results were a surprise. From 85 students, I received 82 completed reflections. The thinking was specific and self-searching. The length of the writings was positively significant. The students surprised themselves with how much they had to say and how easy it was for them to write it down. I credit periodic portfolio evaluation with this student success. This brief reflection exercise included a class period of general brainstorming with final, edited results turned in the next day. This was an indication of what I hoped they would achieve in each classroom during the May evaluation.

It also served as a justification for portfolio self-reflection in my personal philosophy. If teachers took two days after covering a particular concept or theme and encouraged students to think and write a reflection, they would more significantly attach the experience and the learning to their memory. "Perhaps the ability to self-assess and monitor one's own learning is the most important skill a student can acquire" (Kuks 1994).

Combining Yancey's (1992) and Graves' (1994) questions with my own, I developed the following questions to guide students as they select their most significant efforts within my classroom:

1. Why did you select this particular piece of writing, project, or reading response?
2. What are the special strengths of your selection?
3. What did you know before the piece? What do you know now as a result of the writing or project?

4. If you could continue working on your selection, what would you do? How would you extend it, change it, or improve it?
5. How does this piece indicate a change in you as a writer, reader, learner, or thinker?
6. What do you know about yourself as a result of this choice?

The written response would go through the writing process and it would be presented in accordance with the product descriptor.

Reflection

Initially, this portfolio self-evaluation across the curriculum was viewed as an additional activity to an already crowded curriculum; however, as the portfolio became a focus as an assist to the Curriculum Fair, students began to add to their files, bins, and boxes in all the classrooms. They began to think and make decisions about what to keep and what to discard or improve upon. Students wanted to do the portfolio assessment, and grades were not the focus. True to research, once students felt comfortable with the task, they did not need the external motivation of a grade. Teachers identified student's instructional needs via portfolio inclusions.

Rather than having students reflect on a particular piece, they surveyed all efforts in each classroom. The teachers listed all the possibilities, therefore accomplishing a review or overview of all that had been presented during the year. Perhaps students had too many choices, and for some, that proved confusing. We learned it may be more advantageous to do these sorts of reflections at regular intervals to narrow the focus for the final selection. The students were able to proceed in their selections and had clarity in their directions to justify their choices. Some went beyond the scope we presented and compared and contrasted their writings from the beginning of the year to the end.

Portfolios do not need a numerical or letter grade. Rather, portfolios are one important way to see the growth of student ownership and responsibility in their learning.

This project where portfolios were used across the curriculum proved a boon in several regards. First of all, contributing teachers acquired a real sense of what students were doing in all classrooms.

It provided a wealth of ideas for future thematic units encompassing all disciplines. Students were afforded a continuity of the portfolio concept in all classrooms. The teachers' philosophies with the goal of teachers' expectations of student growth in learning was clear to students who learned that teachers and students have a partnership in this process. The concept and unity was appealing as well to teachers not involved in the project, and they contributed and carried parts of the project to their own classrooms and teams. This ability to interject portfolios into any classroom is available to many teachers in our school, because many of us write across the curriculum as a matter of course. If this opportunity exists, then the possibility for creating a portfolio culture across the curriculum becomes real and meaningful.

Reflection, as tough and time-consuming as it was, offers a "breather." The time taken for students to view and think and then write about what they have done reminds them of their purpose in attending school.

Tests, papers, and projects were carefully guarded by students rather than being cast off or lost. Thus, the physical, tangible products of learning became treasured by all of us.

During preliminary self-reflections, student writings were more thoughtful, longer, more specific, and more articulate.

Rather than completing one strand of the curriculum and moving quickly on, the time taken to reflect on what was completed attached the learning to the student's memory and assisted teachers in the next year's planning.

The Curriculum Fair

We had embarked on a plan to use portfolios across the curriculum as a means of producing a product for each student in the Curriculum Fair. The project took on a progression explained in Yancey (1992):

1. Specific class or curricular goals were identified.
2. Additional goals were set by the classroom teacher.
3. Multidisciplinary curricular goals were achieved.
4. Goals were set by the students.

We had accomplished all of these without setting out to do so.

The Curriculum Fair does not involve scurrying around trying to devise a show for parents. The students merely display what was learned and treasured by them during the year. Most importantly, they have written explanations for why their choices are important to them. There is no panic at year's end for a product because the work and effort is at-the-ready, and all students will be able to share what is valuable to them whether English, social studies, science, or math.

For this, our first entry into student self-evaluation across the curriculum, the concentration was on student reflection and the methods we used to encourage and enhance this reflection. We are aware of problems that would exist if portfolios were the final evaluative tool. The design of a rubric was not the thrust of this project. I wanted the students to present an effort that was real during the year and then to review that effort to see how they had grown as learners. A grade was not essential; however, to satisfy the requirement for a grade, a rubric was designed. That became a focus of those of us who contributed to this project as a continuing evolution of portfolios as assessment tools. What was important was the organization of portfolio evaluation across the curriculum. The process the teachers and students had to employ in listing, presenting, and reflecting on the possibilities gave us evidence in the year's efforts. These efforts became our evidence in evaluating the quality of the product (Barton & Collins, 1993).

11. Developing Portfolio Assessment: A Team Effort

Ann Lockledge

Keeping track is a matter of reflective review and summarizing, in which there is both discrimination and record of the significant features of a developing experience. It is the heart of intellectual organization and of the disciplined mind. — John Dewey

An integrated team approach to assigning and evaluating portfolios is not only possible but a very good way to model collaboration. Of course team members must make some fundamental agreements, but they do not have to have exactly the same philosophy and approaches to learning. Since almost all middle level teachers believe that the team approach begins within the classroom, they tend to deliver the same message.

The portfolio developed by students across several classes can be a device for encouraging self-evaluation and for integrating assessment across disciplines. It can move student thinking beyond separate classrooms and put evaluation into a larger context (Lockledge & Hayn, 1995). This authentic assessment becomes an alternative to traditional multiple-choice tests and involves direct examination of student performance on significant tasks that are relevant to a real-world setting.

An instructional team often includes teachers of reading and language arts, science, mathematics, and social studies. The larger team effort will include all of the students as well as the specialists they work with every week.

The concepts involved in teaming were developed over thirty years ago and have changed little in this era of collaborative teaching, although the process has seen many embellishments. Following the precepts laid down by Goodlad and Anderson (1959) that teachers work better in concert than in isolation, the team had to define

itself. This is not a way of organizing a school (Blair & Woodward, 1964) but rather a voluntary cooperative activity among teachers who attempt to attain the same objectives without the benefit of formal organization. This type of teaming was best described by Singer (1966) when he called team teaching an organizational device which encompasses all aspects of the teaching-learning experience and said it might be defined as an arrangement whereby two or more teachers cooperatively plan, instruct, and evaluate one or more class groups in an appropriate instructional space and length of time, so as to take advantage of the special competencies of the team members.

Assessing the portfolio is the ultimate test of the collaborative effort. In order to model commitment to being a team, teachers need to judge the success or failure of their efforts and that of their students across various disciplines. It is indeed appropriate to have students carry a major part of the burden of evaluating their own progress. The problem arises when teachers must still give grades in their respective courses.

To set the scene, each team member must agree to a description of the final product (Figure 1) and a rubric to be used in the final evaluation (Figure 2). Since a portfolio should not contain all of the material produced or collected during the semester, each portfolio should be limited to a specific number of entries, say 12 or 16, with each subject taught represented by at least three or four entries. With team agreement, what is to be included in the portfolio may be outlined and specific.

It is possible for each teacher to assign a different number of points to the portfolio depending on individual grading schema, but it is essential that the evaluation according to the rubric be a team effort. It may prove helpful for each teacher to do a preliminary evaluation using a check sheet or rating form (Figure 3). This will likely make the team meeting go much more smoothly.

Some forced writing during each teacher's class time is an essential ingredient of well-written rationales; one category such as "an example of something that shows you can be creative" is picked, and students are given a minute to think of a possible piece of evidence. Then as the pens and pencils move across the page, oral

prompts can be inserted such as: Why did you pick this piece? What does it represent? How does it relate to you as a learner? After about five minutes of writing, students can share and edit in groups. This editing of each other's work is particularly helpful in developing a clear rationale. Students need to ask each other questions such as, What did you learn from completing this assignment? How did you react to your final product? Did you talk this over with someone else? Why don't you tell how you have improved since the first time you tried something like this? Is this really the best evidence for what you want to say about yourself?

The team can decide to collect the portfolios and evaluate them before they are shared in a celebration. Before meeting as a team, the final written product can be judged by one or two team members using the check sheet (Figure 3). Some teams make piles of the portfolios beside a card with each of the numbers. A pile can be made of portfolios that seem to fall between two ratings, but eventually a decision must be made between the two possibilities. A rating of 3.5 for instance is not appropriate because you do not have a description for that rating. Everyone needs to look at each portfolio and agree on a rating from one to five using the rubric. An assessment sheet can then be prepared for each student with the appropriate rating circled, appropriate comments added, and an interpretation of the rating of points for each class explained (see Figure 4).

This experiment of assigning one portfolio across all of the middle level courses your students take can be quite an eye-opener for a team of teachers. You will learn a lot about yourselves as well as about your students. You will learn to compromise about things that are not really that important, and to explain yourself when you feel strongly about what constituted good evidence or justification of that evidence. Everyone learns not to overlook destructive attitudes and to reinforce those students who were on the right track (even when that track isn't yours). Your students can prove to the entire team that they are capable of articulating their own successes – if only you ask. It becomes possible for a team of teachers to look across disciplines and across classrooms and across students of all abilities and find themselves. 

Figure 1
Middle School Portfolio Product Descriptor

Parts	Attributes
Introduction	• Each portfolio will have a title page and a table of contents. • The general purpose of the individual portfolio will be stated.
Selections	• The standard will be to select the best piece of evidence for any one category. • Suggested categories may be changed, combined, or eliminated. • Pictures may be used to accompany evidence or to show projects but should not be a substitute for displaying individual work.
Reflections	• Each piece of evidence will be accompanied by a comment from the student explaining its significance. • Pictures of evidence may be used in place of a bulky object. • Pictures may be added to a selection to show how the piece was actually used. • Adherence to conventions of the English language will be expected.
Overall Appearance	• Will be placed in a three-hole notebook using plastic sleeves or bags to contain loose pieces of evidence. • All selections will be accompanied by a rationale. • Selections will be separated in some manner.

Figure 2
Portfolio Rubric

For a 1:

- Shows limited comprehension of the assignment; incomplete
- Work tends to be unresponsive, unrelated, or inappropriate
- Shows little comprehension of the concepts covered in classes
- Lacks evidence of understanding the process of learning

For a 2:

- Shows some comprehension of the assignment; somewhat incomplete
- Material shows little support for ideas, descriptive value is inadequate
- Shows comprehension of the concepts covered but little reflection on the process.
- Shows limited understanding of the process of learning.

For a 3:

- Shows acceptable level of comprehension of the assignment; complete
- Material is generally useful, pieces chosen show some relationship to one another.
- There is limited reflection on ideas and concepts, descriptive value is adequate.
- Demonstrates understanding of use of skills obtained and process of learning.

For a 4:

- Shows a high level of comprehension of the assignment; complete and selective
- Materials indicate knowledge of the subjects, relate to one another, are reflective
- Selections show innovative approaches, growth as a learner, application of skills
- Demonstrates ability to reflect on learning

For a 5:

- Shows an outstanding level of comprehension; selective and reflective
- Portfolio is particularly well organized to show interrelatedness of learning
- Demonstrates ability to reflect on evidence of specific learnings
- Documents imply a theme, approach is creative, personalized, innovative

Figure 3
Check Sheet for Rating a Portfolio

NAME OF STUDENT : _____ RATING: _____

Circled numbers should only be used as a guide. Determination may be made without circling numbers if the reader is comfortable doing so. Under no circumstances are numbers to be averaged. This is holistic grading, and the final determination must be a rating from 1 to 5 without decimals.

To be completed independently before the grading conference

Has title page, table of contents, introduction, justifications	1	2	3	4	5
Has adhered to assignment as shown on the explanation sheet	1	2	3	4	5
Portfolio is selective, showing best evidence for a specific idea	1	2	3	4	5
Descriptions in justification indicate knowledge of subject matter	1	2	3	4	5
Reflects on own learning and how it occurred	1	2	3	4	5
Justifications reflect personal beliefs about worth of material	1	2	3	4	5
Selections reflect sound conclusions and growth as a learner	1	2	3	4	5
Evidence of innovative or creative approaches	1	2	3	4	5

To apply the final rating, each teacher will spell out the point variation to be used. That is individual and personal. We all have different approaches based on the content we teach. Only on the rating assigned to the portfolio have we decided to reach a consensus.

This is one way to divide 100 points on an approximate 7 point scale:
 For a 1: (60-69) For a 2: (70-77) For a 3: (78-85)
 For a 4: (86-92) For a 5: (93-100)

Showing this checklist to students would be the same as listing points to be covered in an essay. It would create a formula. The rubric is to be the students' guide and our standard. The checklist is merely a process to more efficiently direct the application of the rubric. Our internal process should be one that is designed to help us reach a consensus, not one which shows individual variations.

INITIALS OF RATER _____

Figure 4
Portfolio Evaluation

Name _____

On this portfolio you have received a rating of: 1 2 3 4 5

This translates to the following number of points in these classes:

Language Arts _____

Mathematics _____

Science _____

Social Studies _____

Comments:

-V-

Putting It All Together

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12. A Professional Portfolio as a Model

Judith A. Hayn

The year passed unbelievably fast. I feel very fortunate to be part of a team that is so cohesive; each person is committed to the students. We are organized and work so well together. As a writing teacher, I am pleased with the number of themes and assignments we developed that integrate writing with the required content skills.

Thus begins the narrative portion of one middle school language arts teacher's professional portfolio for the past academic year. Her practice of keeping her own portfolio is not a gimmick, not a bandwagon, not the jargon of the month like so many educational reform initiatives are labeled, but rather her teaching portfolio is "becoming perhaps the most effective tool in improving the instruction of both new and seasoned teachers and in providing a supportive, convincing method of evaluation" (Zubizarreta, 1994, p. 323).

As Zubizarreta (1994) points out in his article, "Teaching Portfolios and the Beginning Teacher," many scholars believe in this form of documentation as benefiting teachers who seek professional development, as well as administrators who are looking for reliable means of performance evaluation. They believe that using portfolios can help design "exemplary teaching careers" as well as define "viable criteria for the evaluation of instruction."

For my own purposes in teaching university methods classes and supervising interns, the point that the beginning teacher stands to gain even more from a teaching portfolio drives my course requirements for preservice teachers and my strong encouragement for those who serve as models and mentors in established classrooms. There-

fore, the portfolio cited in this chapter as a model represents just such a master teacher, one with over 20 years of classroom experience in the middle school setting, a master's degree in education, recipient of National Board Certification in Middle School Language Arts, and co-director of the Sun Belt Writing Project for ten years.

The experienced teacher's portfolio serves as a catalyst for substantive improvement in one's teaching philosophy, methods, and goals. Also, a portfolio provides outside evaluators with concise, selective, evidence-based information from a wide variety of sources, and gives the novice instructor a highly individualized and credible source for evaluation.

As I continue my own teaching portfolio each year to serve as a model for my students, I follow Bozzone's (1994) advice. I began to practice what I preach. The whole experience is exhilarating, energizing, and exciting – plus, I am validated as a professional educator. What my portfolio shows about me as a classroom teacher proves to any interested observer that in my courses, in my scholarship and research, and in my professional service activities, I am successful; the evidence is there, and the consistency of the documentation is clear. I found that by providing my own model, even from the stance of the university teacher, my students had a clearer picture of what a portfolio looks like; then, having experienced teachers share their portfolios gives them other insights into professional teaching portfolios in progress. Cathy Buckhalt shares her portfolio with colleagues both in and out of her subject area to illustrate the dynamic she finds in maintaining her own evidence of success as a professional educator.

The contents of your teaching portfolio will certainly vary from mine and hers. While I have some requirements I ask preservice teachers to follow, experienced classroom teachers have much more leeway in what they include. In fact, one study that surveyed administrators about their attitudes toward hiring teachers with a professional portfolio dealt with the following issues: Was it beneficial? Did they look upon the portfolio as an indication of quality preparation? Bouas, Bush, and Fero (1995) found that the respondents were divided in what they looked for in hiring beginning teachers, and I

expect this may be true when teaching portfolios are used for performance assessment with current practitioners.

For those who are just entering the profession Bozzone (1994) suggests a "to file" box to collect artifacts you might wish to put in a portfolio and then periodically sort through. Divide your portfolio into six or seven categories such as demonstration of subject knowledge; commitment to students; parent teacher communications; collaboration with colleagues, parents, the community; management of classroom environments; and professional growth. She also suggests that you date each item before you add it for your box and attach a note about why you selected it. A key issue is to set aside time (for instance, during school breaks) to add to your portfolio and to reflect on it.

When compiling the portfolio, I remind teachers that they are organizing a document containing the details of efforts and accomplishments. The selection process doesn't mean a biased picture is presented, but rather a fair and generous one. Even a disastrous effort can show growth and evidence of risk taking, especially if this has been delineated by your statement of philosophy.

Some suggest a lengthy narrative of eight to ten double-spaced pages with selected information about assigned responsibilities, philosophy, methods, materials, classroom experiments, workshop participation, other professional development activities, and goals. Evaluations from students, peers, and supervisors, plus student products, are the hard information, the artifacts, provided in an appendix. Zubizarreta (1994) thus offers the following outline for a table of contents:

1. Assigned teaching responsibilities
2. Reflective statement of teaching philosophy
3. Methods and strategies
4. Description of course materials: syllabi, assignments, and handouts
5. Products: Evidence of student learning,
6. Description and analysis of student and peer evaluations
7. Professional development of teaching: conferences, workshops, curricular revisions, and experiments

8. Short- and long-term teaching goals
9. Appendix (p. 323).

No matter what organizational pattern you choose, when you look at the language used in describing what might go into a portfolio, one word keeps reappearing – *reflection*. This is vital in any portfolio collection in compiling it for the first time and in keeping it current. Keeping a portfolio is a process of continually reflecting on your teaching. This is why we stress using captions with our preservice students. It is not enough to have documentation. *Why is the artifact there? What is it in evidence of? How does it show this?* No matter what system you use to collect data and then organize it, keeping that constant issue of reflective practitioner at the forefront is absolutely vital.

Another suggestion I make to my students and then to teachers is the value of a mentor. Preparing a portfolio in isolation can be daunting; we value collaboration in teaching, so we should also value mentoring in creating this document. However, the mentor should be creative and supportive, especially when beginning teachers seek help and guidance. In our classes, we use a peer review sheet with each portfolio. Preservice teachers are forced to act upon input from colleagues, and they regard this activity very seriously; they report it as helpful and often make changes based on what is reported in written form and in a verbal interview.

Modeling by experienced teachers who already keep professional portfolios is another way to learn about what might be included. In examining portfolios kept by two other middle school teachers, I noticed several different kinds of artifacts: class newsletters, letters to parents, and student journal entries highlighting teaming in the classroom; a summary of their professional growth, including workshops given or attended, organizations they belong to, clippings of articles published about them, and formal evaluations; samples of students' exemplary work; snapshots of classroom activities with captions; notes from kids, parents, colleagues, and administrators; a philosophy statement; selections for personal journals that show how these teachers make a difference in kids' lives; video and audio tapes of themselves in the classroom; reflections from students about their

teaching; clippings about their classes from the school newsletter and local paper; and awards and achievements.

All of these suggestions and guidelines are just that; the emphasis and content of a portfolio should vary with your own interests and your purpose for compiling it. Cathy, our teacher, chose many of the same items listed above, but each has personal meaning and significance for her. Her portfolio became a way for her to illustrate highlights of one school year. Since its purpose is for her own improvement as a classroom teacher, this is the most authentic reason for collecting and highlighting documentation. Then the emphasis will be on establishing connections between teaching philosophy and actual methods outcomes through reflecting on the art of teaching as demonstrated through student products and responding to student ratings. As new items are added and old ones removed, goals change, and so does the portfolio. This is certainly the driving focus of all the teacher portfolios described in this chapter.

Jane Kearns, a high school freshmen English teacher who keeps a portfolio to share with her students, describes how her portfolio has evolved over the years in her chapter about improving the teaching climate in *All That Matters* (1995). Her journey provides a framework for those teachers who may still be hesitant about procedures and choices. For Kearns, the results are worth the effort. She finds her portfolio "gives (her) a path to weave in and about and they shape my tomorrow; the portfolio has become a liberating focus of her literate life" (p. 213). She defines the rationale for keeping your own portfolio, one that may be most beneficial to your teaching. Teachers who keep portfolios create an environment of positive learning where everyone has a chance to grow and stretch and be somebody. We help students select items and then reflect by showing our work and our risk taking; we teach by being learners; we teach by demonstrating that we are making decisions similar to those of our students. We teach by being sensitive and receptive to a variety of inside and outside school learning. My portfolio has done the same for me, and my students and I expect it will for you also.

The time frame doesn't have to be lengthy, no matter how you envision your portfolio. In three or four days as the year winds down,

and perhaps as your own students complete theirs, you can organize your collected documentation, select an order for the artifacts, and reflect in writing on the evidence. Cathy does this succinctly when she comments on her professional development section: "Opelika requires each teacher to maintain a professional development file.... I was able to record the following as writing achievements in my personal file: 1) my continued work with the Sun Project; 2) the development of our department study/reading, group; 3) the publication of one of my personal poems."

You too, can become part of the collaborative community committed to instructional improvement and honest assessment of teaching effectiveness by preparing and then presenting your own professional teaching portfolio as Cathy and many others, including this author have done. ☺

Special thanks to Arlene Owens and Rhonda Evans Benton, Brunswick County (NC) Schools, for sharing their professional teaching portfolios for the purposes of this chapter. Acknowledgment to Cathy Buckhalt, Opelika [AL] City Schools, for allowing her portfolio narrative to serve as the focus of this guide.

Resources

World Wide Web Links to Portfolios and Authentic Assessment

Portfolio Planning

Portfolio planning and design guide

<http://www.dmv.com/~dsea/profdev/portmenu.html>

Theme Portfolios

Directs how to make a theme portfolio

<http://www.artsednet.getty.edu/ArtsEdNet/Resources/Erickson/Place/theme-booklet.html>

Authentic Assessment

Offers suggestions for portfolio assessment in language arts classroom such as guidelines for portfolio journal writing and portfolio creation

<http://www.teacherworkshop.com/twshop/authen.html>

Authentic Assessment

Houghton-Mifflin web site that offers an excellent overview on authentic assessment. Articles include topics such as "Why Is It Important to Align Instruction and Assessment" and "Why Is Student Self-Assessment Important?"

<http://www.eduplace.com/rdg/res/litass/index.html>

An Introduction to Science Portfolio

Great starting point for science teachers. Also a detailed sample of student portfolio and other web links.

http://www.gene.com/ae/21st/TL/mahood_port.html

Portfolio Assessment in Science

Shows examples of using portfolio assessments in science.

<http://www.miamisci.org/ph/lpdefine.html>

Internet Resources on Student Assessment

FINE (First in the Nation of Education) Great links to other www sites. Includes authentic assessment, science/math and language arts sites.

<http://www.iptv.org/finelink/hotlinks.html>

Interview Forms to Encourage Metacognition

Pathways Homepage Sample questions for students to analyze their reading.

<http://www.ncrel.org/sdrs/areas/issues/students/learning/lr1metin.htm>

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Deborah H. Sherrill has been a language arts, middle, and high school teacher for twelve years. She received her Master of Education degree in Reading Education from the University of North Carolina at Wilmington where she worked closely with preservice teachers as they developed their student portfolios. She currently teaches at the university.

Judith A. Hayn, an assistant professor at Loyola University Chicago, has been teaching writing and using holistic scoring for a number of years. She is active in state and national organizations as a presenter, committee member, folio reviewer, and contributor to professional journals. Each year she develops a new portfolio for herself to share with her students. Former director of the Sun Belt Writing Project, Dr. Hayn involves many of her students and their students in the portfolio process.

Arlene M. Owens teaches eighth grade at Leland Middle School in southeastern North Carolina and completed a Master of Education degree in Middle School Education at the University of North Carolina at Wilmington. She presents frequently at conferences and workshops on a broad range of topics including teaching young adults via seminar, reading and writing workshops, picture books and portfolios. Her interest in children's understanding of their own growth as learners continues as students reflect this awareness through their writings in her classroom.

Barbara A. Smythe teaches language arts and social studies at Dixon Middle School in rural, coastal North Carolina. She was first introduced to the use of portfolios as a participant in the Cape Fear Writing Project. Her use of portfolios in an advisory class developed from an independent study during her work for the Master of Education degree in Middle School Education from the University of North Carolina at Wilmington. She recently made a presentation of her advisory portfolios at National Middle School Association.

Rhonda Evans Benton teaches seventh grade in the Brunswick County School System in North Carolina. She is a North Carolina State University graduate of the Middle Grades Education Language Arts / Social Studies program. She is currently pursuing a Master of Education degree at the University of North Carolina at Wilmington in Educational Administration with a focus on middle school.

Angela Joyner teaches sixth grade at Topsail Middle School in Hampstead, North Carolina. She has experimented with portfolios in her classroom for years. Her experience with portfolios has enabled her team to have integrated portfolios across the curriculum. Ms. Joyner has presented workshops on portfolios at middle school conferences as well as to faculty in her own district.

Kathleen Lynch is a teacher of middle grades mathematics and science in Jacksonville, North Carolina. Her particular interest is in writing as a way of promoting understanding in mathematics. Both her undergraduate and graduate degrees are in middle grades education from the University of North Carolina at Wilmington.

"Portfolios used across the curriculum encourage students to view themselves as complete learners, not compartmentalized cogs in the separate subject wheel."

"Assessing the portfolio is the ultimate test of the collaborative effort. In order to model commitment to being a team, teachers need to judge the success or failure of their efforts and that of their students across various disciplines."

"The experienced teacher's portfolio serves as a catalyst for substantive improvement in one's teaching philosophy, methods, and goals."

"The student-written responses were wonderful. Some of the seventh graders talked about their strengths and weaknesses as readers, writers, and learners. They shared personal, real life learning experiences. They even revealed sides of themselves that are not normally seen by their teachers."

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